

# Improved Low-Cost GNSS-R Altimetry by Recursive Temporal Continuity Constraints

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## Abstract

Global Navigation Satellite System (GNSS) signals reflected at the water surface are received together with direct GNSS signals by two low-cost receivers deployed to an unmanned aerial vehicle (UAV). From relative delay of the reflected signals with respect to the direct ones, the height of the UAV above the water surface can be determined by GNSS Reflectometry (GNSS-R). The height estimation is originally conducted independently for each epoch, but by forcing temporally continuous constraints on differences of two receiver clocks, estimates of whole epochs during the study period are then contributed in the recursive estimates of the height. Applying the new method to GNSS-R altimetry data during an approximately 3-min hovering period at around 120-m altitude, the mean and RMS differences from the measured and estimated heights become improved from 0.72 and 5.87 m to 0.35 and 3.74 m. The accuracy of measurements is also found strongly depends on elevation angles of GNSS satellites, and also is sensitive to contaminations of unexpected reflections such as from lands or ships.

# Improved Low-Cost GNSS-R Altimetry by Recursive Temporal Continuity Constraints

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## Key Points:

- A low-cost altimeter to measure water levels of lakes or coastal seas has been achieved by two classical GNSS receivers on a small UAV
- The accuracy is improved by recursive constraints of temporal continuity, suppressing large high-frequency variations
- The accuracy depends on elevation angles of GNSS satellites, and also is sensitive to contaminations of unexpected reflections from lands

## Abstract

Global Navigation Satellite System (GNSS) signals reflected at the water surface are received together with direct GNSS signals by two low-cost receivers deployed to an unmanned aerial vehicle (UAV). From relative delay of the reflected signals with respect to the direct ones, the height of the UAV above the water surface can be determined by GNSS Reflectometry (GNSS-R). The height estimation is originally conducted independently for each epoch, but by forcing temporally continuous constraints on differences of two receiver clocks, estimates of whole epochs during the study period are then contributed in the recursive estimates of the height. Applying the new method to GNSS-R altimetry data during an approximately 3-min hovering period at around 120-m altitude, the mean and RMS differences from the measured and estimated heights become improved from 0.72 and 5.87 m to 0.35 and 3.74 m. The accuracy of measurements is also found strongly depends on elevation angles of GNSS satellites, and also is sensitive to contaminations of unexpected reflections such as from lands or ships.

## Plain Language Summary

Recently, a low-cost altimeter mounted on an unmanned aerial vehicle (UAV) has been developed, which enables to measure water surface height at any time and location. Since Global Navigation Satellite System (GNSS) signals reflected at the water surface and received at the UAV always travel longer than the signals directly received at the UAV, the excess path length of the reflected GNSS signals is used to estimate the height of the UAV above the water surface. These estimations were conducted independently at each 5-Hz sampled observation time, but the new method proposed in the present study forces to contribute whole observations during the study period in estimations at each observation time, assuming that clock precision of the GNSS receivers does not change abruptly. The accuracy of the height estimation has been improved to reduce 50% of estimation errors.

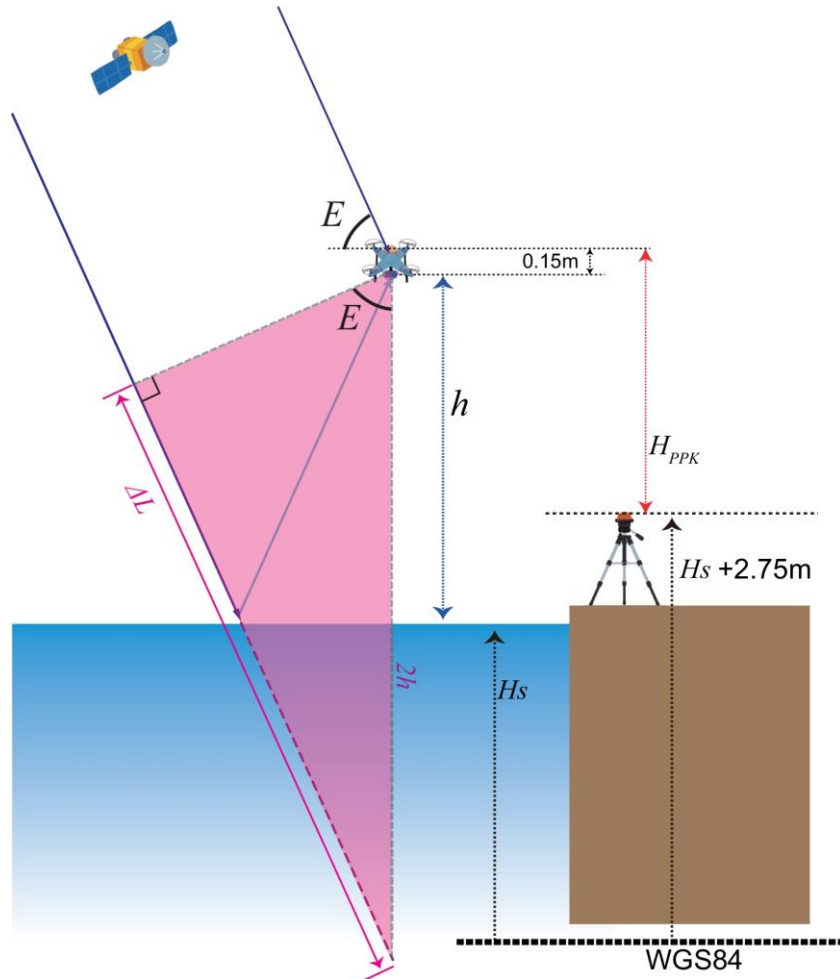
## 1 Introduction

Measurements of water surface height are one of the most fundamental research activities for disaster preventions (e.g. tsunami and flood), monitoring water mass volumes (e.g., rivers, lakes, points and global oceans) and also researches of oceanic variations (e.g. waves, tides and geostrophic velocities). Satellite altimeters have provided unique observations of the sea surface height in open oceans (e.g. Fu and Cazenave, 2001), but their use in coastal areas is limited since conventional altimeters' assumption of homogeneous reflections of microwaves within footprints often corrupts in coastal areas (e.g. Passaro et al., 2014; Ichikawa et al., 2020). Instead, various types of water level gauges are available at fixed positions along coastlines or lakesides.

Nevertheless, more frequent and/or dense observations of water surface would be necessary since temporal and spatial variations in coastal areas, lakes or ponds are generally small. Moreover, some fixed gauge stations may not be in operation in cases of disasters. Therefore, a method is required to measure water levels at an arbitrary time and place. Note that this method would be also useful to calibrate new wide-swath altimeters, such as SWOT (Surface Water and Ocean Topography) mission (Fu et al., 2017).

Global Navigation Satellite System (GNSS) is one of most practical solutions to determine water surface height at an arbitrary time and place. GNSS receivers deployed on surface drifters or mooring systems can directly measure water level, although difficulty of their deployment and recovery may limit periods and locations of measurements. Meanwhile, significant mobility of measurements would be expected for shipborne and airborne altimeters (e.g. Cretaux et al., 2011). These altimeters consist of two measurements; precise height estimations of GNSS receivers on the ships or aircrafts and additional measurements of vertical distance between the GNSS receivers and the water surface beneath.

Light Detection And Ranging (LiDAR) altimetry (e.g., Zlinszky et al., 2017; Lin et al., 2019; Fayad et al., 2020) is often used in airborne altimeters to measure the distance from the water surface. It can accurately measure a range between the LiDAR sensor and the reflection points on the water surface, but since its nadir footprint is narrow, accuracy of the range measurements would be sensitive to the attitude of the LiDAR sensor, slope of the water surface caused by waves, or presence of floating materials on the water surface.



**Figure 1.** Schematic figure of GNSS-R altimetry in Ichikawa et al. (2019). The height of a UAV with respect to the water level,  $h$ , was measured by the PPK positioning method referring to an in situ base station. Meanwhile,  $h$  was estimated from simultaneous observations of the delays,  $\Delta L_i$ , of reflected signals of GNSS satellites whose elevation angles are  $E_i$  ( $i = 1, 2, \dots, N$ ).

GNSS Reflectometry (GNSS-R) is another solution to obtain vertical distance between the water surface and ships or aircrafts. As shown in Fig.1, the path length of GNSS signals reflected at water surface is always longer than that of the direct GNSS signals. Therefore, from the temporal delay of the reflected signals with respect to the direct signals, vertical distance of the water surface and the receiver,  $h$ , can be obtained (e.g., Lowe et al., 2002; Martin-Neira et al., 2002; Ruffini et al., 2004; Roussel et al., 2014). In order to accurately obtain the temporal delay, the direct and reflected GNSS signals should be recorded by synchronized receivers, otherwise floating clock difference between the two receivers will be included as an unknown error.

Recently, Ichikawa et al. (2019) has reported a low-cost GNSS-R altimeter that uses two independent classical receivers on a small unmanned aerial vehicle (UAV); generally, synchronized receivers are significantly expensive than classical receivers. Since signals of all GNSS satellites are recorded at the same time, the difference of the clocks of two receivers are common for all GNSS satellites at a given epoch. Therefore, the clock difference can be solved for each epoch by the least square method applied to signals of several GNSS satellites. Their method has achieved 0.03-m accuracy in observing the water level of a lake, although which strongly depends on the number of available GNSS satellites and the altitude of the UAV; with the smaller number of available GNSS satellites and the higher UAV altitude, the worse the accuracy becomes. In addition, the estimated height  $h$  includes significantly large high-frequency fluctuations, reaching the root mean squared (rms) difference exceeding 3 m even at the best estimates.

In the present study, we further extend the method in Ichikawa et al. (2019) to force temporally continuity of independent estimations at each single epoch. The clock accuracy of a receiver may be influenced by environmental factors such as mechanical vibrations, temperature and pressure, but its variation should be temporally gradual under calm environmental changes. Based on this assumption, we constrain gradual temporal changes of the floating clock differences that have been estimated independently for each epoch. The modified method will be applied in this study to the data during the period when the UAV was hovering at a high altitude, namely the worst estimates in the Ichikawa et al. (2019). The materials and methods used in this study are explained in Section 2, followed by descriptions of the results in Section 3. Discussion and summary are described in Section 4.

## 2 Materials and Methods

Ichikawa et al. (2019) made experimental flights at the western coast of Lake Biwa (35.319°N, 136.077°E), Japan on 7 January 2017, during the period 12:00–14:00 JST. Two antennas (Tallysman TW4721 and Antcom 4G15L-A-XS-1) were mounted on a quadcopter (DJI Phantom 2 Vision+) to receive the direct and reflected GNSS signals, respectively. These were recorded at the 5 Hz rate by two independent classical receivers (ublox NEO-M8T). Due to the limitation of the antennas, only Global Positioning System (GPS) L1 band signals were used. In addition, since all flights were conducted at the lakeside, signals of GPS satellites located to the west of the UAV were eliminated since their reflection points could be on lands rather than on the water surface.

A geodetic 1-Hz GNSS receiver (Hitz NetServe RE) was additionally deployed as an in situ base station, whose height was 2.75 m above the water level  $H_s$ . The vertical height of the UAV,  $H_{PPK}$ , was estimated using the post-processed kinematic (PPK) positioning method (RTKLIB, 2018). Since the antenna receiving reflected GNSS signals was deployed 0.15 m

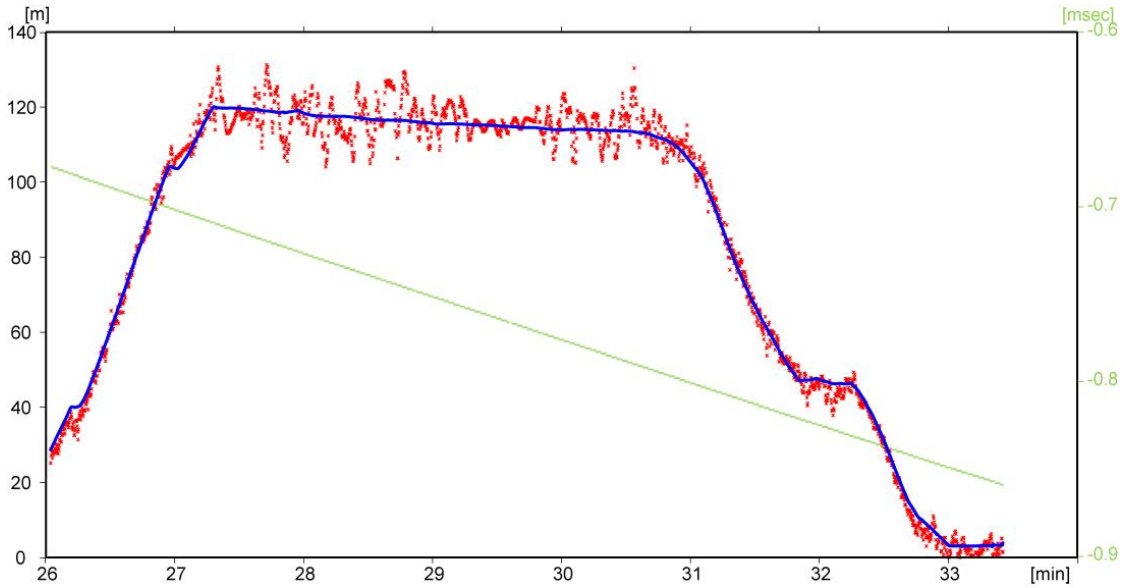
below the other antenna for the direct GNSS signals, its measured height above the water level,  $H_a$ , is determined as  $H_a = H_{PPK} + 2.75 - 0.15$  m (Fig. 1).

For a given GNSS satellite with the elevation angle  $E_i$ , (Fig. 1), the path length of the reflected GNSS signal is longer than the direct GNSS signal by  $2h\sin E_i$ , where  $h$  is the height of the antenna on the UAV (Fig. 1). Meanwhile, the observed delay  $\Delta L_i$  would be affected by an unknown floating clock difference between two receivers,  $\Delta T$ . Since all GNSS satellites are observed at the same time, the clock difference is common for all GNSS satellites. Therefore, from  $i = 1, 2, \dots, N$  satellite observations at an epoch, the following simultaneous equations can be formulated.

$$\begin{bmatrix} \Delta L_1 \\ \vdots \\ \Delta L_N \end{bmatrix} = \begin{bmatrix} 2 \sin(E_1) & 1 \\ \vdots & \vdots \\ 2 \sin(E_N) & 1 \end{bmatrix} \begin{bmatrix} h \\ c\Delta T \end{bmatrix} + \begin{bmatrix} \epsilon_1 \\ \vdots \\ \epsilon_N \end{bmatrix}, \quad (1)$$

where  $c$  is the speed of light and  $\epsilon_i$  is an observational noise. Using the least square method, the height  $h$  and the clock differences  $\Delta T$  can be estimated simultaneously as in the following equation,

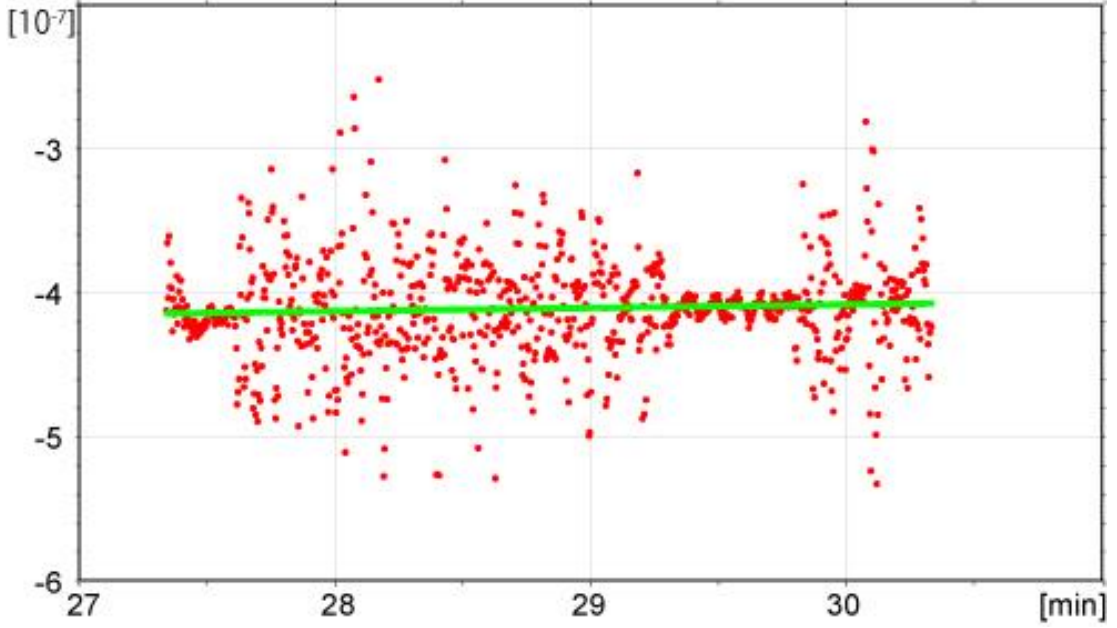
$$\begin{bmatrix} \sum \Delta L_i \sin(E_i) \\ \sum \Delta L_i \end{bmatrix} \sim \begin{bmatrix} 2 \sum \sin^2(E_i) & \sum \sin(E_i) \\ 2 \sum \sin(E_i) & \sum 1 \end{bmatrix} \begin{bmatrix} h \\ c\Delta T \end{bmatrix}. \quad (2)$$



**Figure 2.** Time series of the estimated height  $h$  (red) and measured height  $H_a$  (blue) (left ordinate) at one of the flights in Ichikawa et al. (2019). The simultaneously estimated  $\Delta T$  is also plotted by green dots (right ordinate). The abscissa is the elapsed time in minutes from noon on 7 January 2017 (JST).

Figure 2 shows an example of results in Ichikawa et al. (2019). The UAV moved straight upward and hovered for nearly four minutes at an approximately 120-m altitude, then moved downward. The estimated height  $h$  clearly followed the measured height  $H_a$ , although high-frequency fluctuations whose amplitudes are larger than 10 m are included during the hovering period (from 27.5 to 31 min). Meanwhile, the simultaneously estimated floating

clock difference  $\Delta T$  showed constant gradual changes, independently from the altitude of UAV.



**Figure 3.** Temporal change rate of the estimated floating clock difference  $\Delta T$  shown in Fig. 2 (red dots) and that of the quadratic-fitted  $\Delta T^e$  (green dots) estimated by the least square method applied to  $\Delta T$ .

However, the temporal change rate of  $\Delta T$  was not actually constant. The change rate  $d(\Delta T)/dt$  during the hovering period (when the vertical speed of the UAV,  $dH_a/dt$ , was within  $\pm 0.1 \text{ ms}^{-1}$ ) at approximately 120 m altitude indicates that it also includes high-frequency fluctuations around the mean value (Fig. 3). Since  $\Delta T$  is mainly caused by difference of clock accuracy of the receivers, which should not change abruptly with the steady environmental conditions during the hovering, these high-frequency fluctuations of the estimated  $\Delta T$  would not be real changes but errors of the  $\Delta T$  estimations associated with wrong estimations of  $h$  that is simultaneously determined. Therefore, temporally-gradual  $\Delta T^e$  determined by the quadratic-fit of  $\Delta T$  is introduced to eliminate these high-frequency noises (Fig. 3). By subtracting  $\Delta T^e$  in Eq. (1), the simultaneous equations becomes

$$\begin{bmatrix} \Delta L_1^e \\ \vdots \\ \Delta L_N^e \end{bmatrix} = \begin{bmatrix} \Delta L_1 - c\Delta T^e \\ \vdots \\ \Delta L_N - c\Delta T^e \end{bmatrix} = h \begin{bmatrix} 2 \sin(E_1) \\ \vdots \\ 2 \sin(E_N) \end{bmatrix} + \begin{bmatrix} \epsilon_1 \\ \vdots \\ \epsilon_N \end{bmatrix}. \quad (3)$$

Using the least square method, the height  $h$  can be estimated from  $\Delta L_i^e$  as in the following equation

$$\sum \Delta L_i^e \sin(E_i) \sim 2h \sum \sin^2(E_i). \quad (4)$$

Furthermore, if the observational noise  $\epsilon_i$  is negligibly small,  $h$  can be roughly estimated from Eq. (3) by  $\Delta L_i^e / 2 \sin(E_i)$  for each individual GNSS satellite.

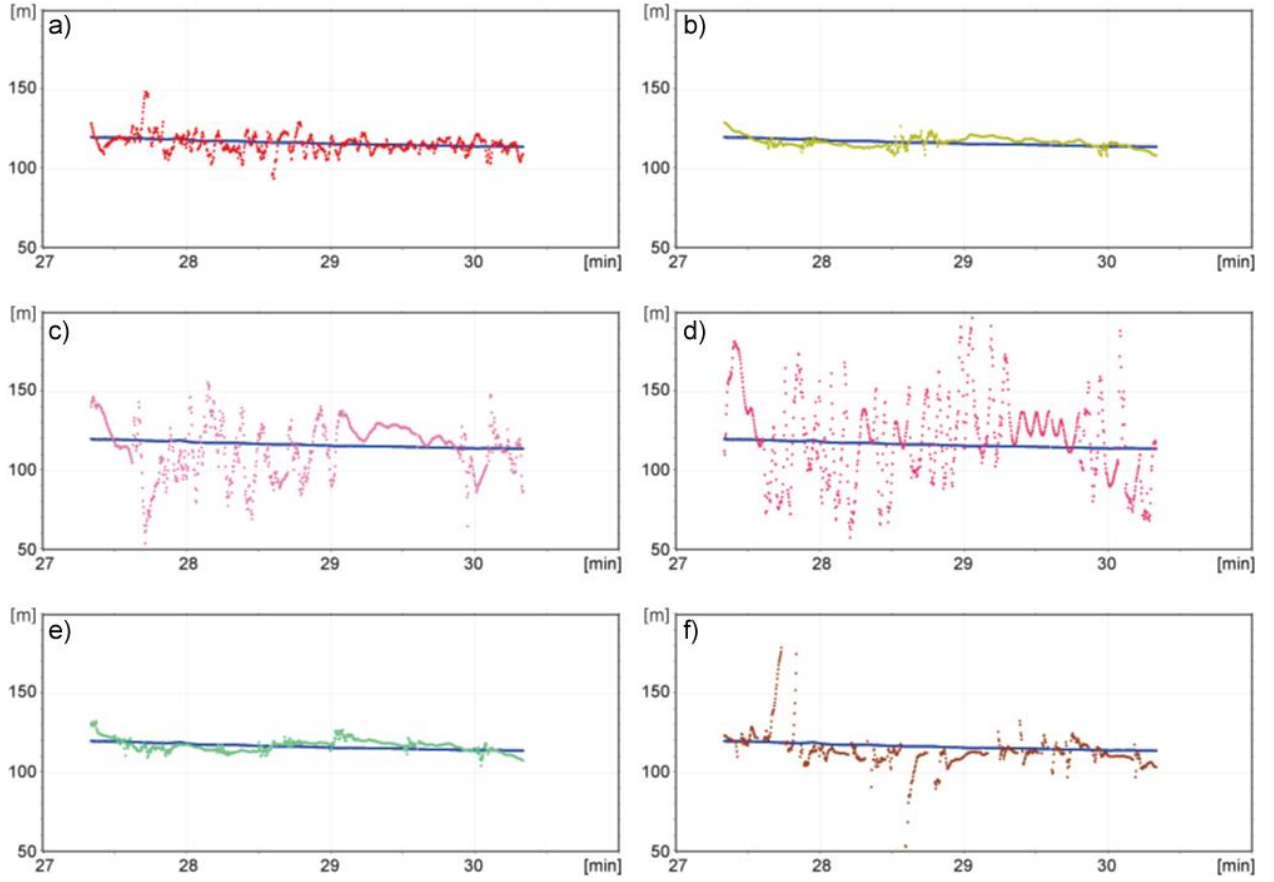
### 3 Results

In this study, we choose the worst accuracy case when the UAV was hovering at a high altitude (approximately 120 m) in the first flight of Ichikawa et al. (2019). Five GNSS satellites were available during this study period (Table 1). Since the sampling rate was 5 Hz, 895 epochs are used during the 179-second period, except for one GPS satellite whose pseudo random noise (PRN) number is 44. Most satellites were located to the northeast/east of the UAV, but the satellite with PRN 44 was located to the south of UAV. Since a shoal was extended to the south/southeast of the observation site, missing observations of PRN 44 could be affected by unexpected reflection from the lands.

**Table 1.** *GPS Satellites used in the Analysis*

| PRN | Elevation angles | Azimuth angle  | epochs |
|-----|------------------|----------------|--------|
|     | [deg]            |                |        |
| 13  | 58.0 to 56.9     | 29.1 to 30.6   | 895    |
| 28  | 11.3 to 11.6     | 68.0 to 66.7   | 895    |
| 30  | 9.8 to 8.7       | 39.6 to 39.3   | 895    |
| 5   | 43.3 to 42.3     | 106.8 to 108.2 | 895    |
| 44  | 44.3 to 44.6     | 152.3 to 153.4 | 758    |

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**Figure 4.** Time series of the original estimated height  $h$  as in Fig. 2 (a), and rough estimations of the height  $h$  by  $\Delta L_i^e / 2 \sin(E_i)$  in Eq. (3) for PRN 13 (b), 28 (c), 30 (d), 5 (e) and 44 (f). The measured height  $H_a$  is plotted by blue dots in all panels for reference.

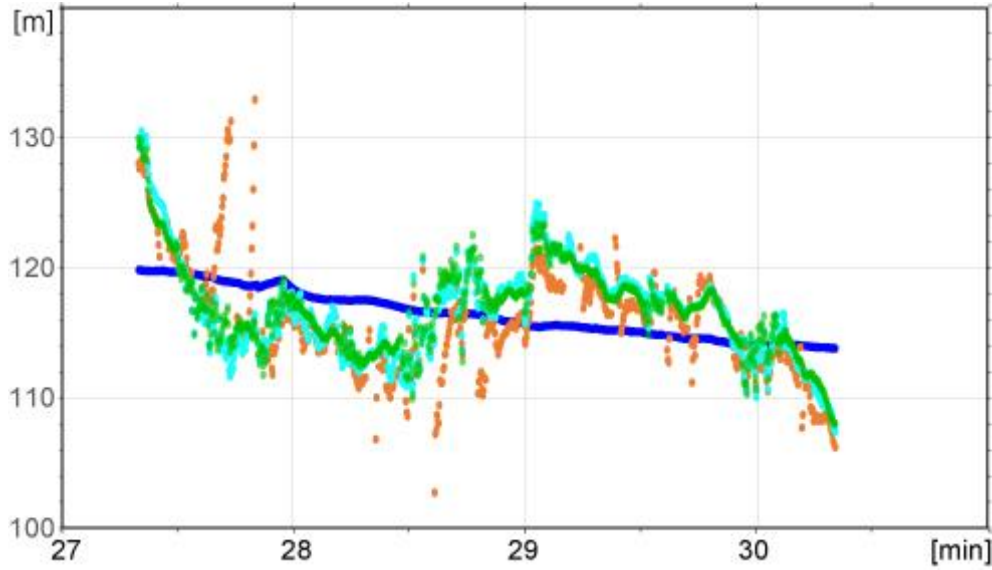
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After subtracting the quadratic-fitted  $\Delta T^e$ , the height  $h$  is roughly estimated for individual GPS satellites as  $\Delta L_i^e / 2 \sin(E_i)$  in Eq. (3), assuming that the observational noise  $\epsilon_i$  is small (Fig. 4). Comparing with the original estimation of the height  $h$  shown in Fig. 2 (Fig. 4a), two panels (Fig. 4b and 4e) show less fluctuations but the others exhibit extremely larger fluctuations. As shown in Table 2, the RMS difference from the measured height  $H_a$  for the original estimation (5.87 m) is larger than those for PRN 13 (3.30 m) and PRN 5 (3.82 m), but smaller than those for PRN 28, 30 and 44 (17.07, 26.80, 11.43m, respectively). Similarly, the mean differences from  $H_a$  show the same tendency as that smaller absolute values for PRN 13 and 5 (0.27, 0.50 m) and larger absolute values for PRN 28, 30 and 44 (-2.50, 3.88, -3.17 m). The accuracy of these  $h$  estimation for each GPS satellite is significantly related with their elevation angles (Table 1), except for PRN 44; estimations become more accurate when the elevation angles of GPS satellites are high. This relationship, however, does not fit to PRN 44 since the elevation angles of PRN 44 (approximately 44.4°) is slightly larger than that of PRN 5 (approximately 42.8°).

**Table 2.** *Statistics of the Difference between the Measured and Estimated Heights*

|                                     |               |            |       |               |       |
|-------------------------------------|---------------|------------|-------|---------------|-------|
| Original estimation by Eq. (2)      |               |            |       |               |       |
| PRN                                 | 13+5+28+30+44 |            |       |               |       |
| Mean diff. [m]                      | -0.72         |            |       |               |       |
| RMS diff. [m]                       | 5.87          |            |       |               |       |
| Individual GPS estimates in Eq. (3) |               |            |       |               |       |
| PRN                                 | 13            | 28         | 30    | 5             | 44    |
| Mean diff. [m]                      | 0.27          | -2.50      | 3.88  | 0.50          | -3.17 |
| RMS diff. [m]                       | 3.30          | 17.07      | 26.80 | 3.82          | 11.43 |
| Least square methods in Eq. (4)     |               |            |       |               |       |
| PRN                                 | 13+5          | 13+5+28+30 |       | 13+5+28+30+44 |       |
| Mean diff. [m]                      | 0.36          | 0.35       |       | -0.51         |       |
| RMS diff. [m]                       | 3.37          | 3.74       |       | 4.12          |       |

Among three GPS satellites with less accurate estimations, high-frequency variations with approximately five-second periods are present during the whole duration in PRN 28 (Fig. 4c) and PRN 30 (Fig. 4d), although they tend to be suppressed at around 29.5 min. Meanwhile, for PRN 44, these high-frequency variations are less significant but extremely large spiky outliers are occasionally recorded, i.e. at around 27.75 min and 28.6 min. This would suggest, as anticipated, that errors from local sources, such as lands, are contaminated only in PRN 44, which also explains why the estimation accuracy is low in spite of the relatively high elevation angles.



**Figure 5.** Time series of the estimated height  $h$  by the least square method in Eq. (4) from data of five GPS satellites (orange), four GPS satellites excluding PRN 44 (magenta) and two GPS satellites PRN 13 and 5 (green). The measured height  $H_a$  is also plotted by blue dots.

Applying the least square method in Eq (4), the estimated height after the removal of  $\Delta T^e$  is determined (Fig. 5). The estimation with all five GPS satellites results in the better accuracy than the original estimation, both in the mean and RMS differences (Table 2). When the data of PRN 44 that could be contaminated by lands are excluded, the accuracy becomes better. The mean difference from the measured height  $H_a$  is 0.35 m, and the RMS difference is also reduced from 5.87 m to 3.74 m. Meanwhile, the mean and RMS differences do not change much when data from low-elevation-angle GPS satellites (PRN 28 and 30) are further excluded, suggesting that they contribute less to the estimation in Eq. (4).

#### 4 Discussion and Summary

As seen in Fig. 5, the recursive constraint of temporal continuity of  $\Delta T$  certainly suppress high-frequency noises seen in the original  $h$  estimation (Fig. 4a). However, there still exist long-term variations with periods exceeding one minute with an amplitude of approximately 5 m. Since simple quadratic function  $\Delta T^e$  was applied to the noisy  $\Delta T$  in the present study, more complicated functions could be adopted that allow few-minute variations of clock accuracy of the receivers. Note that, however, extensively complex functions may not be meaningful since the estimate of  $\Delta T$  itself has already been heavily contaminated by the use of GNSS satellites with low elevation angles or possible land reflections. The best functional forms for extracting unknown true  $\Delta T$  from noisy observations would be discussed in future studies. Remind that  $\Delta T^e$  in the present study is estimated from a large number of individual  $\Delta T$  estimates, so that the practical number of GNSS observations concerning with a single-epoch estimation of  $h$  in Eq. (4) is consequently increased than the original estimation in Eq. (2).

Figure 4 and Table 2 indicate that errors in the  $h$  estimations are sensitive both to the elevation angles and unexpected reflections such as ones from lands or ships. The former errors may not be critical since their contribution to the  $h$  estimation is less if GNSS satellites

with higher elevation angles are available. Meanwhile, unexpected reflections may not negligible as in Fig. 4. Since low-cost GNSS-R altimeters are supposed to be used in coastal seas and lakes or ponds where numbers of natural or artificial structures are present, careful treatments on unexpected reflections other than water surface are necessary.

The present method has improved the GNSS-R measurement accuracy from 0.72 m to 0.35 m, although which would still not be enough for some researches. However, note that the present study treats the worst case when the altitude of the UAV is high and the number of available GNSS satellites is small. Easily, the hovering altitude of a UAV can be set lower. Remind also that a lower altitude will confirm that GNSS-R reflection points will be not far away from the nadir so that unexpected reflections from ships and lands are less likely included. The number of satellites can be increased by including other GNSS satellites such as BeiDou, GLONASS and QZSS. Following these suggestions, experimental observations with multi-types GNSS satellites at lower hovering altitudes will be reported in separated papers.

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## References

- Cretaux, J.-F., Calmant, S., Romanovski, V., Perosanz, F., Tashbaeva, S., Bonnefond, P., Moreira, D., Shum, C.K., Nino F., Berge-Nguyen, M., Fleury, S., Gegout P., Abarca del Rio, R. & Maisongrande, P. (2011), Absolute Calibration of Jason Radar Altimeters from GPS Kinematic Campaigns over Lake Issykkul. *Mar. Geod.*, 34, 291-318, doi:10.1080/01490419.2011.585110
- Fayad I., Baghdadi, N., Bailly, J.S., Frappart, F. & Zribi M. (2020), Analysis of GEDI elevation data accuracy for inland waterbodies altimetry. *Rem. Sens.*, 12(17), 2714. doi:10.3390/rs12172714
- Fu, L.L. & Cazenave, A. (2001), *Satellite Altimetry and Earth Sciences: A Handbook of Techniques and Applications*. Academic Press, San Diego, CA, USA, 2001, 463pp, ISBN 0-12-269545-3
- Fu, L.L., Alsdorf, D., Morrow, R. & Rodriguez, E. (2012), *SWOT: The Surface Water and Ocean Topography Mission*, available on line: [https://swot.jpl.nasa.gov/system/documents/files/2179\\_2179\\_SWOT\\_MSD\\_1202012.pdf](https://swot.jpl.nasa.gov/system/documents/files/2179_2179_SWOT_MSD_1202012.pdf)
- Ichikawa, K., Ebinuma, T., Konda, M. & Yufu K. (2019), Low-cost GNSS-R altimetry on a UAV for water-level measurements at arbitrary times and locations. *Sensors*, 19, 998. doi:10.3390/s19050998
- Ichikawa, K., Wang, X.F. & Tamura, H. (2020), Capability of Jason-2 subwaveform retracers for significant wave height in the calm semi-enclosed Celebes Sea, *Rem. Sens.*, 12, 3367, doi:10.3390/rs12203367

- Lin, Y.C., Cheng, Y.T., Zhou, T., Ravi, R., Hasheminasb, S.M., Flatt, J.E., Troy, C. & Habib, A. (2019), Evaluation of UAV LiDAR for Mapping Coastal Environments. *Rem. Sens.*, 11, 2893, doi:10.3390/rs11242893
- Lowe, S.T., Zuffada, C., Chao, Y., Kroger, P., Young, L.E. & LaBrecque, J.L., 5-cm-Precision aircraft ocean altimetry using GPS reflections, *Geophys. Res. Lett.*, 29, 1375
- Martin-Neira, M., Colmenarejo, P., Ruffini, G. & Serra C. (2002), Altimetry precision of 1 cm over a pond using the wide-lane carrier phase of GPS reflected signals, *Can. J. Rem. Sens.*, 28(3), 294-403
- Passaro, M., Cipollini, P., Vignudeli, S., Quartly, G.D. & Snaith, H.M. (2014), ALES: A multi-mission adaptive subwaveform retracker for coastal and open ocean altimetry, *Rem. Sens. Environ.*, 145, 173-189, doi:10.1016/j.rse.2014.02.008
- Roussel, N., Frappart, F., Ramillen, G., Darrozes, J., Desjardins, C., Gegout, P., Perosanz, F. & Biancale, R. (2014), Simulations of direct and reflected wave trajectories for ground-based GNSS-R experiments, *Geosci. Mod. Dev.*, 7, 2261-2279, doi:10.5194/gmd-7-2261-2014
- RTKLIB: An Open Source Program Package for GNSS Positioning, Available on line: <http://www.rtklib.com/> (accessed on 1 December 2018)
- Ruffini, G., Soulat, F., Caparini, M., Germain, O. & Martin-Neira, M. (2004), The Eddy Experiment: Accurate GNSS-R ocean altimetry from low altitude aircraft, *Geophys. Res. Lett.*, 31, L12306, doi:10.1029/2004GL01994
- Zlinszky, A., Boergens, E., Glira, P. & Pfeifer, N. (2017), Airborne Laser Scanning for calibration and validation of inshore satellite altimetry: A proof of concept, *Rem. Sens. Environ.*, 197, 35-42, doi: 10.1016/j.rse.2017.04.027

| Time[min] | Lat[deg] | Lon[deg] | Ha[m]    | H[m]     | DeltaT[ms] | Eq(4)<br>PRN=13+<br>5+28+30<br>+44 [m] | Eq(4)<br>PRN=13+<br>5+28+30<br>[m] | Eq(4)<br>PRN=13+<br>5 [m] | Elevation<br>Angle<br>PRN=13<br>[deg] | Azimuth<br>Aangle<br>PRN=13<br>[deg] | Eq(3)<br>PRN=13<br>[m] | Elevation<br>Angle<br>PRN=28<br>[deg] | Azimuth<br>Aangle<br>PRN=28<br>[deg] | Eq(3)<br>PRN=28<br>[m] | Elevation<br>Angle<br>PRN=30<br>[deg] | Azimuth<br>Aangle<br>PRN=30<br>[deg] | Eq(3)<br>PRN=30<br>[m] | Elevation<br>Angle<br>PRN=5<br>[deg] | Azimuth<br>Aangle<br>PRN=5<br>[deg] | Eq(3)<br>PRN=5<br>[m] | Elevation<br>angle<br>PRN=44<br>[deg] | Azimuth<br>Aangle<br>PRN=44<br>[deg] | Eq(3)<br>PRN=44<br>[m] |
|-----------|----------|----------|----------|----------|------------|----------------------------------------|------------------------------------|---------------------------|---------------------------------------|--------------------------------------|------------------------|---------------------------------------|--------------------------------------|------------------------|---------------------------------------|--------------------------------------|------------------------|--------------------------------------|-------------------------------------|-----------------------|---------------------------------------|--------------------------------------|------------------------|
| 27.336667 | 35.31898 | 136.0771 | 119.8162 | 128.5495 | -0.7102837 | 127.976                                | 129.8254                           | 129.9096                  | 58                                    | 29.1                                 | 129.1299               | 11.3                                  | 68                                   | 140.3851               | 9.8                                   | 39.6                                 | 112.3729               | 43.3                                 | 106.8                               | 131.1019              | 44.3                                  | 152.3                                | 123.2105               |
| 27.34     | 35.31898 | 136.0771 | 119.8098 | 128.0451 | -0.7103661 | 127.5838                               | 129.1956                           | 129.225                   | 58                                    | 29.1                                 | 128.9638               | 11.3                                  | 68                                   | 142.683                | 9.8                                   | 39.6                                 | 110.1118               | 43.3                                 | 106.8                               | 129.6244              | 44.3                                  | 152.3                                | 123.4306               |
| 27.343333 | 35.31898 | 136.0771 | 119.7926 | 126.1722 | -0.7104392 | 127.9217                               | 129.6858                           | 129.4177                  | 58                                    | 29.1                                 | 128.8175               | 11.3                                  | 68                                   | 144.0909               | 9.8                                   | 39.6                                 | 121.6021               | 43.3                                 | 106.8                               | 130.3355              | 44.3                                  | 152.3                                | 123.376                |
| 27.346667 | 35.31898 | 136.0771 | 119.7865 | 125.45   | -0.71052   | 127.6976                               | 129.5518                           | 129.2111                  | 58                                    | 29.1                                 | 128.6101               | 11.3                                  | 68                                   | 144.8719               | 9.8                                   | 39.6                                 | 123.2385               | 43.3                                 | 106.9                               | 130.13                | 44.3                                  | 152.3                                | 122.9198               |
| 27.35     | 35.31898 | 136.0771 | 119.7706 | 123.6049 | -0.7105921 | 128.2696                               | 130.4351                           | 129.7852                  | 58                                    | 29.1                                 | 128.4632               | 11.3                                  | 68                                   | 146.6322               | 9.8                                   | 39.6                                 | 135.6541               | 43.3                                 | 106.9                               | 131.8065              | 44.3                                  | 152.3                                | 122.6897               |
| 27.353333 | 35.31898 | 136.0771 | 119.7641 | 122.1276 | -0.7106713 | 127.6355                               | 129.6738                           | 128.8811                  | 58                                    | 29.1                                 | 128.2347               | 11.3                                  | 68                                   | 145.5392               | 9.8                                   | 39.6                                 | 141.1935               | 43.3                                 | 106.9                               | 129.8696              | 44.3                                  | 152.3                                | 122.3833               |
| 27.356667 | 35.31898 | 136.0771 | 119.765  | 120.4523 | -0.7107472 | 127.5536                               | 129.66                             | 128.6485                  | 58                                    | 29.1                                 | 127.9015               | 11.3                                  | 68                                   | 145.8722               | 9.8                                   | 39.6                                 | 149.7073               | 43.3                                 | 106.9                               | 129.7906              | 44.3                                  | 152.3                                | 122.126                |
| 27.36     | 35.31898 | 136.0771 | 119.7566 | 119.3648 | -0.7108266 | 127.2612                               | 129.383                            | 128.2701                  | 58                                    | 29.1                                 | 127.5279               | 11.3                                  | 68                                   | 143.8833               | 9.8                                   | 39.6                                 | 155.862                | 43.3                                 | 106.9                               | 129.405               | 44.3                                  | 152.3                                | 121.7938               |
| 27.363333 | 35.31898 | 136.0771 | 119.7388 | 119.7612 | -0.7109119 | 127.1274                               | 129.2485                           | 128.2338                  | 58                                    | 29.1                                 | 127.1541               | 11.3                                  | 68                                   | 141.5409               | 9.8                                   | 39.6                                 | 154.6216               | 43.3                                 | 106.9                               | 129.8846              | 44.3                                  | 152.3                                | 121.662                |
| 27.366667 | 35.31898 | 136.0771 | 119.7399 | 119.4783 | -0.7109928 | 127.3129                               | 129.5381                           | 128.4808                  | 58                                    | 29.1                                 | 126.8831               | 11.3                                  | 68                                   | 141.5131               | 9.8                                   | 39.6                                 | 157.082                | 43.3                                 | 106.9                               | 130.9237              | 44.3                                  | 152.3                                | 121.5792               |
| 27.37     | 35.31898 | 136.0771 | 119.7384 | 119.7675 | -0.7110758 | 127.5957                               | 129.9918                           | 128.9756                  | 58                                    | 29.1                                 | 126.6726               | 11.3                                  | 68                                   | 139.8808               | 9.8                                   | 39.6                                 | 158.6085               | 43.3                                 | 106.9                               | 132.497               | 44.3                                  | 152.3                                | 121.4216               |
| 27.373333 | 35.31898 | 136.0771 | 119.7381 | 119.0627 | -0.7111582 | 127.0303                               | 129.278                            | 128.2212                  | 58                                    | 29.1                                 | 126.3598               | 11.3                                  | 67.9                                 | 139.5825               | 9.8                                   | 39.6                                 | 159.0124               | 43.3                                 | 106.9                               | 131.0674              | 44.3                                  | 152.3                                | 121.2386               |
| 27.376667 | 35.31898 | 136.0771 | 119.7361 | 117.7481 | -0.7112402 | 125.9363                               | 127.8501                           | 126.6989                  | 58                                    | 29.1                                 | 126.0255               | 11.3                                  | 67.9                                 | 140.71                 | 9.8                                   | 39.6                                 | 158.0724               | 43.3                                 | 106.9                               | 127.7286              | 44.3                                  | 152.3                                | 121.0051               |
| 27.38     | 35.31898 | 136.0771 | 119.7338 | 115.9722 | -0.7113178 | 125.341                                | 127.1047                           | 125.7616                  | 58                                    | 29.1                                 | 125.4445               | 11.3                                  | 67.9                                 | 142.1018               | 9.8                                   | 39.6                                 | 162.3751               | 43.3                                 | 106.9                               | 126.2465              | 44.3                                  | 152.3                                | 120.7963               |
| 27.383333 | 35.31898 | 136.0771 | 119.7386 | 115.8051 | -0.7114021 | 124.8748                               | 126.3642                           | 125.0386                  | 58                                    | 29.1                                 | 125.1515               | 11.3                                  | 67.9                                 | 141.9786               | 9.8                                   | 39.6                                 | 160.0985               | 43.3                                 | 106.9                               | 124.866               | 44.3                                  | 152.3                                | 121.0371               |
| 27.386667 | 35.31898 | 136.0771 | 119.7318 | 115.506  | -0.7114841 | 124.8049                               | 126.3779                           | 125.0324                  | 58                                    | 29.1                                 | 124.8788               | 11.3                                  | 67.9                                 | 141.8542               | 9.8                                   | 39.6                                 | 161.1128               | 43.3                                 | 106.9                               | 125.2673              | 44.3                                  | 152.3                                | 120.7517               |
| 27.39     | 35.31898 | 136.0771 | 119.7142 | 114.4795 | -0.711564  | 124.4611                               | 126.0015                           | 124.5527                  | 58                                    | 29.1                                 | 124.6053               | 11.3                                  | 67.9                                 | 141.4631               | 9.8                                   | 39.6                                 | 164.9979               | 43.3                                 | 106.9                               | 124.4723              | 44.3                                  | 152.3                                | 120.4918               |
| 27.393333 | 35.31898 | 136.0771 | 119.7144 | 113.4207 | -0.7116422 | 124.4527                               | 126.0711                           | 124.4838                  | 58                                    | 29.1                                 | 124.4134               | 11.3                                  | 67.9                                 | 141.1576               | 9.8                                   | 39.6                                 | 171.2513               | 43.3                                 | 106.9                               | 124.5914              | 44.3                                  | 152.3                                | 120.2824               |
| 27.396667 | 35.31898 | 136.0771 | 119.7111 | 112.3214 | -0.7117205 | 124.3933                               | 126.0705                           | 124.3454                  | 58                                    | 29.1                                 | 124.1393               | 11.3                                  | 67.9                                 | 140.9403               | 9.8                                   | 39.6                                 | 177.1954               | 43.3                                 | 106.9                               | 124.6606              | 44.3                                  | 152.3                                | 120.0713               |
| 27.4      | 35.31898 | 136.0771 | 119.7124 | 112.0229 | -0.7118028 | 124.2599                               | 125.9091                           | 124.1523                  | 58                                    | 29.1                                 | 124.1745               | 11.3                                  | 67.9                                 | 140.7243               | 9.8                                   | 39.6                                 | 178.41                 | 43.3                                 | 106.9                               | 124.1183              | 44.3                                  | 152.3                                | 120.0102               |
| 27.403333 | 35.31898 | 136.0771 | 119.7149 | 111.4651 | -0.7118837 | 124.1507                               | 125.8201                           | 124.005                   | 58                                    | 29.1                                 | 124.0024               | 11.3                                  | 67.9                                 | 140.058                | 9.8                                   | 39.6                                 | 181.4773               | 43.3                                 | 106.9                               | 124.0089              | 44.3                                  | 152.3                                | 119.8493               |
| 27.406667 | 35.31898 | 136.0771 | 119.7271 | 111.2135 | -0.7119665 | 123.9437                               | 125.6342                           | 123.8206                  | 58                                    | 29.1                                 | 123.6867               | 11.3                                  | 67.9                                 | 139.393                | 9.8                                   | 39.6                                 | 181.8647               | 43.3                                 | 106.9                               | 124.0253              | 44.3                                  | 152.3                                | 119.5877               |
| 27.41     | 35.31898 | 136.0771 | 119.7343 | 111.5021 | -0.7120513 | 123.8221                               | 125.4603                           | 123.7048                  | 58                                    | 29.1                                 | 123.6173               | 11.3                                  | 67.9                                 | 138.5483               | 9.8                                   | 39.6                                 | 180.1962               | 43.3                                 | 106.9                               | 123.8385              | 44.3                                  | 152.3                                | 119.6008               |
| 27.413333 | 35.31898 | 136.0771 | 119.7433 | 111.6498 | -0.712135  | 123.7882                               | 125.2433                           | 123.5141                  | 58                                    | 29.2                                 | 123.4243               | 11.3                                  | 67.9                                 | 137.5262               | 9.8                                   | 39.6                                 | 179.9645               | 43.3                                 | 106.9                               | 123.6515              | 44.3                                  | 152.3                                | 120.0385               |
| 27.416667 | 35.31898 | 136.0771 | 119.7425 | 111.4501 | -0.7122191 | 123.3368                               | 125.0776                           | 123.39                    | 58                                    | 29.2                                 | 123.375                | 11.3                                  | 67.9                                 | 136.5898               | 9.8                                   | 39.6                                 | 179.1123               | 43.3                                 | 106.9                               | 123.413               | 44.3                                  | 152.3                                | 118.851                |
| 27.42     | 35.31898 | 136.0771 | 119.7454 | 110.5769 | -0.712301  | 122.7064                               | 125.1198                           | 123.414                   | 58                                    | 29.2                                 | 123.3047               | 11.3                                  | 67.9                                 | 136.6297               | 9.8                                   | 39.6                                 | 179.9069               | 43.3                                 | 106.9                               | 123.5811              | 44.3                                  | 152.3                                | 116.4876               |
| 27.423333 | 35.31898 | 136.0771 | 119.7552 | 109.894  | -0.7123852 | 121.7393                               | 125.0053                           | 123.3546                  | 58                                    | 29.2                                 | 123.2961               | 11.3                                  | 67.9                                 | 136.1375               | 9.8                                   | 39.6                                 | 178.0253               | 43.3                                 | 106.9                               | 123.4441              | 44.3                                  | 152.3                                | 113.3237               |
| 27.426667 | 35.31898 | 136.0771 | 119.7513 | 109.0118 | -0.7124682 | 120.831                                | 125.0206                           | 123.3896                  | 58                                    | 29.2                                 | 123.411                | 11.3                                  | 67.9                                 | 135.7309               | 9.8                                   | 39.6                                 | 177.7907               | 43.3                                 | 106.9                               | 123.357               | 44.3                                  | 152.3                                | 110.0356               |
| 27.43     | 35.31898 | 136.0771 | 119.7562 | 113.7774 | -0.7125547 | 124.9856                               | 124.9856                           | 123.3947                  | 58                                    | 29.2                                 | 123.4431               | 11.3                                  | 67.9                                 | 134.6112               | 9.8                                   | 39.6                                 | 177.5517               | 43.3                                 | 106.9                               | 123.3206              | #N/A                                  | #N/A                                 | #N/A                   |
| 27.433333 | 35.31898 | 136.0771 | 119.7545 | 113.8477 | -0.7126387 | 124.8084                               | 124.8084                           | 123.257                   | 58                                    | 29.2                                 | 123.2891               | 11.3                                  | 67.9                                 | 133.4904               | 9.8                                   | 39.6                                 | 177.0015               | 43.3                                 | 106.9                               | 123.208               | #N/A                                  | #N/A                                 | #N/A                   |
| 27.436667 | 35.31898 | 136.0771 | 119.7575 | 114.2559 | -0.7127235 | 124.8058                               | 124.8058                           | 123.3167                  | 58                                    | 29.2                                 | 123.3619               | 11.3                                  | 67.9                                 | 132.2817               | 9.8                                   | 39.6                                 | 176.0396               | 43.3                                 | 106.9                               | 123.2475              | #N/A                                  | #N/A                                 | #N/A                   |
| 27.44     | 35.31898 | 136.0771 | 119.7599 | 114.7178 | -0.7128089 | 124.6918                               | 124.6918                           | 123.2875                  | 58                                    | 29.2                                 | 123.372                | 11.3                                  | 67.9                                 | 130.8014               | 9.8                                   | 39.6                                 | 174.2527               | 43.3                                 | 106.9                               | 123.1583              | #N/A                                  | #N/A                                 | #N/A                   |
| 27.443333 | 35.31898 | 136.0771 | 119.75   | 115.1519 | -0.7128941 | 124.6163                               | 124.6163                           | 123.2868                  | 58                                    | 29.2                                 | 123.3622               | 11.3                                  | 67.9                                 | 129.8558               | 9.8                                   | 39.6                                 | 172.2574               | 43.3                                 | 106.9                               | 123.1716              | #N/A                                  | #N/A                                 | #N/A                   |
| 27.446667 | 35.31898 | 136.0771 | 119.7495 | 115.3083 | -0.7129789 | 124.3564                               | 124.3564                           | 123.0825                  | 58                                    | 29.2                                 | 123.2485               | 11.3                                  | 67.9                                 | 129.2662               | 9.8                                   | 39.6                                 | 170.1569               | 43.3                                 | 106.9                               | 122.8286              | #N/A                                  | #N/A                                 | #N/A                   |
| 27.45     | 35.31898 | 136.0771 | 119.7438 | 113.9878 | -0.7130628 | 122.6803                               | 124.0287                           | 122.8168                  | 58                                    | 29.2                                 | 122.7846               | 11.3                                  | 67.9                                 | 128.5861               | 9.8                                   | 39.6                                 | 167.7475               | 43.3                                 | 106.9                               | 122.866               | 44.3                                  | 152.3                                | 119.206                |
| 27.453333 | 35.31898 | 136.0771 | 119.7277 | 115.1515 | -0.7131488 | 123.1538                               | 123.7223                           | 122.6124                  | 58                                    | 29.2                                 | 122.5883               | 11.3                                  | 67.9                                 | 127.7238               | 9.7                                   | 39.6                                 | 164.8165               | 43.3                                 | 106.9                               | 122.6492              | 44.3                                  | 152.3                                | 121.6898               |
| 27.456667 | 35.31898 | 136.0771 | 119.7178 | 116.3476 | -0.7132349 | 123.6394                               | 123.3251                           | 122.3034                  | 58                                    | 29.2                                 | 122.1858               | 11.3                                  | 67.9                                 | 126.7735               | 9.7                                   | 39.6                                 | 161.4729               | 43.3                                 | 106.9                               | 122.4832              | 44.3                                  | 152.3                                | 124.4489               |
| 27.46     | 35.31898 | 136.0771 | 119.6957 | 116.6253 | -0.7133201 | 123.4015                               | 123.1761                           | 122.231                   | 58                                    | 29.2                                 | 122.0915               | 11.3                                  | 67.9                                 | 126.0007               | 9.7                                   | 39.6                                 | 158.954                | 43.3                                 | 106.9                               | 122.4444              | 44.3                                  | 152.3                                | 123.9821               |
| 27.463333 | 35.31898 | 136.0771 | 119.6828 | 116.19   | -0.7134047 | 122.6008                               | 122.974                            | 122.0934                  | 58                                    | 29.2                                 | 121.8737               | 11.3                                  | 67.9                                 | 125.6706               | 9.7                                   | 39.6                                 | 156.2234               | 43.3                                 | 106.9                               | 122.4294              | 44.3                                  | 152.3                                | 121.6396               |
| 27.466667 | 35.31898 | 136.0771 | 119.6719 | 115.6543 | -0.7134905 | 121.424                                | 122.7547                           | 121.9799                  | 58                                    | 29.2                                 | 121.862                | 11.3                                  | 67.9                                 | 124.7194               | 9.7                                   | 39.6                                 | 152.5661               | 43.3                                 | 106.9                               | 122.1601              | 44.3                                  | 152.3                                | 117.9966               |
| 27.47     | 35.31898 | 136.0771 | 119.657  | 116.7173 | -0.7135761 | 121.8824                               | 122.7381                           | 122.0412                  | 58                                    | 29.2                                 | 121.8902               | 11.3                                  | 67.9                                 | 124.2977               | 9.7                                   | 39.6                                 | 149.8313               | 43.3                                 | 106.9                               | 122.272               | 44.3                                  | 152.3                                | 119.6785               |
| 27.473333 | 35.31898 | 136.0771 | 119.6599 | 117.3581 | -0.7136617 | 121.9436                               | 122.4614                           | 121.8488                  | 58                                    | 29.2                                 | 121.5482               | 11.3                                  | 67.9                                 | 123.0738               | 9.7                                   | 39.6                                 | 147.3012               | 43.3                                 | 106.9                               | 122.3085              | 44.3                                  | 152.3                                | 120.61                 |
| 27.476667 | 35.31898 | 136.0771 | 119.6608 | 117.9204 | -0.7137467 | 122.0279                               | 122.2945                           | 121.7441                  | 58                                    | 29.2                                 | 121.4525               | 11.3                                  | 67.9                                 | 122.6498               | 9.7                                   | 39.6                                 | 144.8755               | 43.3                                 | 106.9                               | 122.19                | 44.3                                  | 152.3                                | 121.3413               |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 27.48     | 35.31898 | 136.0771 | 119.6625 | 117.521  | -0.7138311 | 121.3019 | 122.0994 | 121.6109 | 58   | 29.2 | 121.192  | 11.3 | 67.9 | 121.9618 | 9.7 | 39.6 | 142.7552 | 43.3 | 106.9 | 122.2513 | 44.3 | 152.3 | 119.2479 |
| 27.483333 | 35.31898 | 136.0771 | 119.6567 | 117.4522 | -0.7139161 | 120.7639 | 122.0007 | 121.5851 | 58   | 29.2 | 121.2603 | 11.3 | 67.9 | 121.1783 | 9.7 | 39.6 | 140.5295 | 43.3 | 106.9 | 122.0817 | 44.3 | 152.3 | 117.5782 |
| 27.486667 | 35.31898 | 136.0771 | 119.6503 | 117.7817 | -0.7140007 | 120.7217 | 121.843  | 121.4801 | 58   | 29.2 | 121.1644 | 11.3 | 67.9 | 120.3069 | 9.7 | 39.6 | 139.1267 | 43.3 | 106.9 | 121.9628 | 44.3 | 152.3 | 117.8336 |
| 27.49     | 35.31898 | 136.0771 | 119.6546 | 118.1368 | -0.7140847 | 120.8463 | 121.6937 | 121.3602 | 58   | 29.2 | 121.0269 | 11.3 | 67.9 | 119.7914 | 9.7 | 39.6 | 138.2394 | 43.3 | 106.9 | 121.8699 | 44.3 | 152.3 | 118.6639 |
| 27.493333 | 35.31898 | 136.0771 | 119.6575 | 118.6994 | -0.7141694 | 120.9908 | 121.621  | 121.3437 | 58   | 29.2 | 121.0944 | 11.3 | 67.9 | 118.7367 | 9.7 | 39.6 | 137.1436 | 43.3 | 106.9 | 121.7248 | 44.3 | 152.3 | 119.3677 |
| 27.496667 | 35.31898 | 136.0771 | 119.6591 | 118.9512 | -0.7142534 | 120.9981 | 121.9884 | 121.7742 | 58   | 29.2 | 121.0183 | 11.3 | 67.9 | 118.3081 | 9.7 | 39.6 | 135.9427 | 43.3 | 106.9 | 122.9299 | 44.3 | 152.3 | 118.4474 |
| 27.5      | 35.31898 | 136.0771 | 119.6641 | 118.3803 | -0.7143365 | 120.4016 | 121.6827 | 121.4677 | 58   | 29.2 | 121.0233 | 11.3 | 67.9 | 117.6973 | 9.7 | 39.6 | 136.0828 | 43.3 | 106.9 | 122.1471 | 44.3 | 152.3 | 117.102  |
| 27.503333 | 35.31898 | 136.0771 | 119.6574 | 119.2739 | -0.7144205 | 121.0526 | 121.829  | 121.6662 | 57.9 | 29.2 | 120.6787 | 11.3 | 67.9 | 116.3764 | 9.7 | 39.6 | 136.0145 | 43.3 | 106.9 | 123.1729 | 44.3 | 152.3 | 119.0554 |
| 27.506667 | 35.31898 | 136.0771 | 119.651  | 118.6621 | -0.7145026 | 120.6176 | 120.9808 | 120.7622 | 57.9 | 29.2 | 120.3959 | 11.3 | 67.9 | 115.7633 | 9.7 | 39.6 | 137.1843 | 43.3 | 106.9 | 121.3211 | 44.3 | 152.3 | 119.6834 |
| 27.51     | 35.31898 | 136.0771 | 119.6505 | 118.205  | -0.7145853 | 120.2132 | 119.9024 | 119.6286 | 57.9 | 29.2 | 120.1328 | 11.3 | 67.9 | 115.3301 | 9.7 | 39.6 | 137.5245 | 43.2 | 106.9 | 118.8566 | 44.3 | 152.3 | 121.0116 |
| 27.513333 | 35.31898 | 136.0771 | 119.6391 | 119.003  | -0.7146678 | 121.0906 | 120.3809 | 120.1265 | 57.9 | 29.2 | 119.7043 | 11.3 | 67.9 | 115.1609 | 9.7 | 39.6 | 138.0706 | 43.2 | 106.9 | 120.7731 | 44.3 | 152.3 | 122.9138 |
| 27.516667 | 35.31898 | 136.0771 | 119.6231 | 119.0021 | -0.7147497 | 121.3191 | 120.2986 | 120.0155 | 57.9 | 29.2 | 119.3179 | 11.3 | 67.9 | 115.3475 | 9.7 | 39.6 | 138.8256 | 43.2 | 106.9 | 121.0838 | 44.3 | 152.3 | 123.9404 |
| 27.52     | 35.31898 | 136.0771 | 119.6279 | 119.1168 | -0.714832  | 121.5591 | 119.4926 | 119.1373 | 57.9 | 29.2 | 119.2599 | 11.3 | 67.9 | 115.6196 | 9.7 | 39.6 | 139.5763 | 43.2 | 106.9 | 118.9495 | 44.3 | 152.3 | 126.8676 |
| 27.523333 | 35.31898 | 136.0771 | 119.6152 | 119.9207 | -0.7149152 | 122.312  | 120.0126 | 119.6883 | 57.9 | 29.2 | 119.1195 | 11.3 | 67.9 | 115.6253 | 9.7 | 39.6 | 139.5    | 43.2 | 106.9 | 120.5593 | 44.3 | 152.3 | 128.2186 |
| 27.526667 | 35.31898 | 136.0771 | 119.6088 | 120.3699 | -0.7149985 | 122.6515 | 120.2111 | 119.9116 | 57.9 | 29.2 | 119.0196 | 11.3 | 67.9 | 115.7191 | 9.7 | 39.6 | 138.8006 | 43.2 | 106.9 | 121.2777 | 44.3 | 152.3 | 128.9204 |
| 27.53     | 35.31898 | 136.0771 | 119.6064 | 120.5408 | -0.715083  | 122.4691 | 120.23   | 119.9897 | 57.9 | 29.2 | 119.0634 | 11.3 | 67.9 | 114.7433 | 9.7 | 39.6 | 137.6881 | 43.2 | 106.9 | 121.4083 | 44.3 | 152.3 | 128.2209 |
| 27.533333 | 35.31898 | 136.0771 | 119.5834 | 120.2994 | -0.7151672 | 121.9394 | 119.6008 | 119.3863 | 57.9 | 29.2 | 118.7783 | 11.3 | 67.9 | 114.2126 | 9.7 | 39.6 | 135.8513 | 43.2 | 106.9 | 120.3175 | 44.3 | 152.3 | 127.9465 |
| 27.536667 | 35.31898 | 136.0771 | 119.5828 | 120.2579 | -0.7152512 | 121.6561 | 119.7229 | 119.5605 | 57.9 | 29.2 | 118.6982 | 11.3 | 67.9 | 113.9458 | 9.7 | 39.6 | 134.3237 | 43.2 | 106.9 | 120.881  | 44.3 | 152.3 | 126.6218 |
| 27.54     | 35.31898 | 136.0771 | 119.5774 | 119.1431 | -0.715335  | 120.3243 | 118.4274 | 118.2488 | 57.9 | 29.2 | 118.4739 | 11.3 | 67.9 | 113.8563 | 9.7 | 39.6 | 132.0686 | 43.2 | 106.9 | 117.9042 | 44.3 | 152.3 | 125.1972 |
| 27.543333 | 35.31898 | 136.0771 | 119.5727 | 119.8173 | -0.7154193 | 120.6963 | 119.2945 | 119.2107 | 57.9 | 29.2 | 118.3318 | 11.3 | 67.9 | 114.0308 | 9.7 | 39.6 | 129.9153 | 43.2 | 106.9 | 120.5566 | 44.3 | 152.4 | 124.2973 |
| 27.546667 | 35.31898 | 136.0771 | 119.5641 | 118.97   | -0.7155026 | 119.7619 | 118.4249 | 118.3237 | 57.9 | 29.2 | 118.045  | 11.3 | 67.9 | 114.6502 | 9.7 | 39.6 | 127.7571 | 43.2 | 106.9 | 118.7505 | 44.3 | 152.4 | 123.1965 |
| 27.55     | 35.31898 | 136.0771 | 119.5465 | 119.1703 | -0.7155863 | 119.7818 | 118.8616 | 118.8169 | 57.9 | 29.2 | 117.8611 | 11.3 | 67.9 | 115.1817 | 9.7 | 39.6 | 125.7066 | 43.2 | 106.9 | 120.2805 | 44.3 | 152.4 | 122.1455 |
| 27.553333 | 35.31898 | 136.0771 | 119.5372 | 119.2522 | -0.7156705 | 119.5616 | 118.5175 | 118.507  | 57.9 | 29.2 | 117.697  | 11.3 | 67.9 | 114.8197 | 9.7 | 39.6 | 123.9594 | 43.2 | 106.9 | 119.7473 | 44.3 | 152.4 | 122.2437 |
| 27.556667 | 35.31898 | 136.0771 | 119.5342 | 119.3573 | -0.7157546 | 119.3832 | 118.2507 | 118.2697 | 57.9 | 29.2 | 117.6365 | 11.3 | 67.9 | 114.8134 | 9.7 | 39.6 | 122.1067 | 43.2 | 107   | 119.2394 | 44.3 | 152.4 | 122.2922 |
| 27.56     | 35.31898 | 136.0771 | 119.5284 | 119.7717 | -0.7158383 | 119.6326 | 118.6466 | 118.7078 | 57.9 | 29.2 | 117.6777 | 11.3 | 67.9 | 114.8034 | 9.7 | 39.6 | 121.2895 | 43.2 | 107   | 120.2852 | 44.3 | 152.4 | 122.1655 |
| 27.563333 | 35.31898 | 136.0771 | 119.5204 | 119.9384 | -0.715922  | 119.6024 | 118.664  | 118.7535 | 57.9 | 29.2 | 117.7193 | 11.3 | 67.9 | 114.7948 | 9.7 | 39.6 | 120.1595 | 43.2 | 107   | 120.3372 | 44.3 | 152.4 | 122.0128 |
| 27.566667 | 35.31898 | 136.0771 | 119.5023 | 118.4817 | -0.716005  | 118.1233 | 116.6977 | 116.6927 | 57.9 | 29.2 | 117.7399 | 11.3 | 67.9 | 115.0525 | 9.7 | 39.6 | 119.1316 | 43.2 | 107   | 115.089  | 44.3 | 152.4 | 121.7852 |
| 27.57     | 35.31898 | 136.0771 | 119.4994 | 119.4243 | -0.7160885 | 118.916  | 118.916  | 119.0555 | 57.9 | 29.2 | 117.719  | 11.3 | 67.9 | 115.1307 | 9.7 | 39.6 | 118.2058 | 43.2 | 107   | 121.1022 | #N/A | #N/A  | #N/A     |
| 27.573333 | 35.31898 | 136.0771 | 119.4976 | 118.5951 | -0.7161716 | 118.0275 | 118.0275 | 118.1368 | 57.9 | 29.2 | 117.6978 | 11.3 | 67.9 | 115.2076 | 9.7 | 39.6 | 117.2754 | 43.2 | 107   | 118.8091 | #N/A | #N/A  | #N/A     |
| 27.576667 | 35.31898 | 136.0771 | 119.4806 | 115.353  | -0.7162539 | 114.9262 | 114.9262 | 114.8798 | 57.9 | 29.2 | 117.6556 | 11.3 | 67.9 | 115.4592 | 9.7 | 39.6 | 116.1417 | 43.2 | 107   | 110.6291 | #N/A | #N/A  | #N/A     |
| 27.58     | 35.31898 | 136.0771 | 119.4719 | 118.3746 | -0.7163384 | 117.5861 | 117.5861 | 117.7159 | 57.9 | 29.2 | 117.4692 | 11.3 | 67.9 | 115.1769 | 9.7 | 39.6 | 115.4187 | 43.2 | 107   | 118.0937 | #N/A | #N/A  | #N/A     |
| 27.583333 | 35.31898 | 136.0771 | 119.4571 | 118.5045 | -0.7164214 | 117.6865 | 117.6865 | 117.8308 | 57.9 | 29.2 | 117.3439 | 11.3 | 67.9 | 114.9852 | 9.7 | 39.6 | 115.3112 | 43.2 | 107   | 118.5765 | #N/A | #N/A  | #N/A     |
| 27.586667 | 35.31898 | 136.0771 | 119.4541 | 117.1711 | -0.7165036 | 116.4888 | 116.4888 | 116.575  | 57.9 | 29.2 | 117.033  | 11.3 | 67.9 | 114.698  | 9.7 | 39.6 | 115.309  | 43.2 | 107   | 115.8736 | #N/A | #N/A  | #N/A     |
| 27.59     | 35.31898 | 136.0771 | 119.4327 | 116.6191 | -0.7165857 | 116.1191 | 116.1191 | 116.1714 | 57.9 | 29.2 | 116.8664 | 11.3 | 67.9 | 114.4147 | 9.7 | 39.6 | 116.2372 | 43.2 | 107   | 115.1072 | #N/A | #N/A  | #N/A     |
| 27.593333 | 35.31898 | 136.0771 | 119.4181 | 117.1061 | -0.716668  | 116.7356 | 116.7356 | 116.8019 | 57.9 | 29.2 | 116.7615 | 11.3 | 67.9 | 114.2168 | 9.7 | 39.6 | 117.372  | 43.2 | 107   | 116.8638 | #N/A | #N/A  | #N/A     |
| 27.596667 | 35.31898 | 136.0771 | 119.4138 | 117.1366 | -0.7167511 | 116.714  | 116.714  | 116.7881 | 57.9 | 29.2 | 116.841  | 11.3 | 67.9 | 113.4852 | 9.7 | 39.6 | 117.9863 | 43.2 | 107   | 116.7071 | #N/A | #N/A  | #N/A     |
| 27.6      | 35.31898 | 136.0771 | 119.4009 | 117.7384 | -0.7168341 | 117.2763 | 117.2763 | 117.3813 | 57.9 | 29.2 | 116.9409 | 11.3 | 67.9 | 112.7499 | 9.7 | 39.6 | 119.0148 | 43.2 | 107   | 118.0556 | #N/A | #N/A  | #N/A     |
| 27.603333 | 35.31898 | 136.0771 | 119.3869 | 117.8942 | -0.7169175 | 117.323  | 117.323  | 117.4564 | 57.9 | 29.2 | 116.8345 | 11.3 | 67.9 | 111.5725 | 9.7 | 39.6 | 119.5257 | 43.2 | 107   | 118.4087 | #N/A | #N/A  | #N/A     |
| 27.606667 | 35.31898 | 136.0771 | 119.3834 | 118.8888 | -0.717001  | 118.1736 | 118.1736 | 118.3749 | 57.9 | 29.3 | 116.7078 | 11.3 | 67.9 | 110.6591 | 9.7 | 39.6 | 119.9284 | 43.2 | 107   | 120.9278 | #N/A | #N/A  | #N/A     |
| 27.61     | 35.31898 | 136.0771 | 119.3634 | 119.3371 | -0.7170856 | 118.2162 | 118.2162 | 118.4878 | 57.9 | 29.3 | 116.5809 | 11.3 | 67.9 | 109.5635 | 9.7 | 39.6 | 118.5688 | 43.2 | 107   | 121.408  | #N/A | #N/A  | #N/A     |
| 27.613333 | 35.31898 | 136.0771 | 119.3455 | 120.0123 | -0.7171733 | 117.8231 | 116.6598 | 117.0179 | 57.9 | 29.3 | 116.2677 | 11.3 | 67.8 | 108.026  | 9.7 | 39.6 | 113.3733 | 43.2 | 107   | 118.1668 | 44.3 | 152.4 | 120.8112 |
| 27.616667 | 35.31898 | 136.0771 | 119.3118 | 122.9204 | -0.7172689 | 117.8984 | 116.1544 | 116.8957 | 57.9 | 29.3 | 116.1189 | 11.3 | 67.8 | 107.1983 | 9.7 | 39.6 | 97.2918  | 43.2 | 107   | 118.0854 | 44.3 | 152.4 | 122.3782 |
| 27.62     | 35.31898 | 136.0771 | 119.3009 | 124.8325 | -0.7173627 | 117.3625 | 115.7733 | 116.8614 | 57.9 | 29.3 | 116.115  | 11.3 | 67.8 | 105.5694 | 9.7 | 39.6 | 84.1044  | 43.2 | 107   | 118.0045 | 44.3 | 152.4 | 121.4449 |
| 27.623333 | 35.31898 | 136.0771 | 119.2935 | 127.0036 | -0.7174547 | 117.4937 | 115.6669 | 117.0365 | 57.9 | 29.3 | 116.2749 | 11.3 | 67.8 | 104.8286 | 9.7 | 39.6 | 73.093   | 43.2 | 107   | 118.2029 | 44.3 | 152.4 | 122.1863 |
| 27.626667 | 35.31898 | 136.0771 | 119.28   | 126.1587 | -0.7175282 | 118.7302 | 115.7537 | 116.7361 | 57.9 | 29.3 | 116.3313 | 11.3 | 67.8 | 116.3539 | 9.7 | 39.6 | 73.895   | 43.2 | 107   | 117.3559 | 44.3 | 152.4 | 126.376  |
| 27.63     | 35.31898 | 136.0771 | 119.2902 | 126.375  | -0.7176085 | 119.5152 | 116.9452 | 117.7902 | 57.9 |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 27.636667 | 35.31898 | 136.0771 | 119.3061 | 118.0378 | -0.7177477 | 117.094  | 115.6905 | 115.6978 | 57.9 | 29.3 | 115.5933 | 11.3 | 67.8 | 133.2342 | 9.7 | 39.6 | 91.6585  | 43.2 | 107   | 115.8578 | 44.3 | 152.4 | 120.6991 |
| 27.64     | 35.31898 | 136.0771 | 119.3073 | 117.051  | -0.717831  | 116.0143 | 114.0487 | 114.1018 | 57.9 | 29.3 | 113.2592 | 11.3 | 67.8 | 128.7521 | 9.7 | 39.6 | 91.9432  | 43.2 | 107   | 115.3921 | 44.3 | 152.4 | 121.0635 |
| 27.643333 | 35.31898 | 136.0771 | 119.3081 | 118.7966 | -0.717924  | 115.4699 | 113.5103 | 113.9344 | 57.9 | 29.3 | 112.7375 | 11.3 | 67.8 | 120.9779 | 9.7 | 39.6 | 85.6883  | 43.2 | 107   | 115.7673 | 44.3 | 152.4 | 120.5038 |
| 27.646667 | 35.31898 | 136.0771 | 119.3055 | 121.7552 | -0.7180144 | 116.7559 | 114.1921 | 114.8462 | 57.9 | 29.3 | 114.4    | 11.3 | 67.8 | 115.1617 | 9.7 | 39.6 | 85.5503  | 43.2 | 107   | 115.5294 | 44.3 | 152.4 | 123.3416 |
| 27.65     | 35.31898 | 136.0771 | 119.2857 | 124.6225 | -0.7181064 | 117.5782 | 115.5819 | 116.499  | 57.9 | 29.3 | 117.5037 | 11.3 | 67.8 | 112.544  | 9.7 | 39.6 | 81.3691  | 43.2 | 107   | 114.9604 | 44.3 | 152.4 | 122.7061 |
| 27.653333 | 35.31898 | 136.0771 | 119.2717 | 125.4959 | -0.7181902 | 118.2338 | 116.5167 | 117.4144 | 57.9 | 29.3 | 119.7212 | 11.3 | 67.8 | 114.7217 | 9.7 | 39.6 | 81.4359  | 43.2 | 107   | 113.8818 | 44.3 | 152.4 | 122.6445 |
| 27.656667 | 35.31898 | 136.0771 | 119.256  | 125.0399 | -0.718271  | 118.2343 | 115.6077 | 116.4513 | 57.9 | 29.3 | 117.7357 | 11.3 | 67.8 | 115.8359 | 9.7 | 39.6 | 80.0496  | 43.2 | 107   | 114.4843 | 44.3 | 152.4 | 124.9814 |
| 27.66     | 35.31898 | 136.0771 | 119.2275 | 122.6909 | -0.7183385 | 119.3046 | 115.7081 | 116.0173 | 57.9 | 29.3 | 117.3572 | 11.3 | 67.8 | 123.2604 | 9.7 | 39.6 | 92.5762  | 43.2 | 107   | 113.9653 | 44.3 | 152.4 | 128.5431 |
| 27.663333 | 35.31898 | 136.0771 | 119.1938 | 120.2045 | -0.7184074 | 119.9211 | 115.1102 | 114.9272 | 57.9 | 29.3 | 115.845  | 11.3 | 67.8 | 132.4587 | 9.7 | 39.6 | 99.2903  | 43.2 | 107   | 113.5218 | 44.3 | 152.4 | 132.2792 |
| 27.666667 | 35.31898 | 136.0771 | 119.1579 | 121.2353 | -0.7184814 | 122.9313 | 117.6532 | 117.0954 | 57.9 | 29.3 | 119.2356 | 11.3 | 67.8 | 143.3464 | 9.7 | 39.6 | 106.21   | 43.2 | 107   | 113.818  | 44.3 | 152.4 | 136.4896 |
| 27.67     | 35.31898 | 136.0771 | 119.1217 | 120.8485 | -0.7185616 | 123.1451 | 117.2646 | 116.6401 | 57.9 | 29.3 | 118.5063 | 11.3 | 67.8 | 139.9215 | 9.7 | 39.6 | 112.7164 | 43.2 | 107   | 113.7822 | 44.3 | 152.4 | 138.2507 |
| 27.673333 | 35.31898 | 136.0771 | 119.0893 | 118.071  | -0.7186401 | 121.3338 | 114.9289 | 114.2406 | 57.9 | 29.3 | 114.8297 | 11.3 | 67.8 | 131.8705 | 9.7 | 39.6 | 120.7767 | 43.2 | 107   | 113.3384 | 44.3 | 152.4 | 137.7867 |
| 27.676667 | 35.31898 | 136.0771 | 119.068  | 117.013  | -0.718718  | 121.3743 | 114.5037 | 113.6812 | 57.9 | 29.3 | 113.729  | 11.3 | 67.8 | 130.313  | 9.7 | 39.6 | 127.492  | 43.2 | 107   | 113.608  | 44.3 | 152.4 | 139.023  |
| 27.68     | 35.31898 | 136.0771 | 119.0614 | 120.4469 | -0.7188141 | 121.8494 | 114.8291 | 114.4826 | 57.9 | 29.3 | 114.8116 | 11.3 | 67.8 | 116.6628 | 9.7 | 39.6 | 126.8269 | 43.2 | 107   | 113.9787 | 44.3 | 152.4 | 139.883  |
| 27.683333 | 35.31898 | 136.0771 | 119.039  | 124.5127 | -0.7189081 | 123.4079 | 116.0662 | 116.1119 | 57.9 | 29.3 | 116.2641 | 11.3 | 67.8 | 110.0305 | 9.7 | 39.6 | 122.319  | 43.2 | 107   | 115.8789 | 44.3 | 152.4 | 142.2671 |
| 27.686667 | 35.31898 | 136.0771 | 119.0309 | 125.1822 | -0.718998  | 122.489  | 114.0171 | 114.2624 | 57.9 | 29.3 | 114.2965 | 11.3 | 67.8 | 108.5567 | 9.7 | 39.6 | 111.1527 | 43.2 | 107   | 114.2101 | 44.3 | 152.4 | 144.2513 |
| 27.69     | 35.31898 | 136.0771 | 119.0152 | 128.8624 | -0.719095  | 123.0128 | 113.7682 | 114.4941 | 57.9 | 29.3 | 114.4715 | 11.3 | 67.8 | 98.4594  | 9.7 | 39.6 | 104.1431 | 43.2 | 107   | 115.5287 | 44.3 | 152.4 | 146.76   |
| 27.693333 | 35.31898 | 136.0771 | 118.9984 | 131.4538 | -0.7191858 | 123.821  | 113.72   | 114.761  | 57.9 | 29.3 | 113.9048 | 11.3 | 67.8 | 88.9828  | 9.7 | 39.6 | 103.6776 | 43.2 | 107   | 116.0722 | 44.3 | 152.4 | 149.7681 |
| 27.696667 | 35.31898 | 136.0771 | 118.9778 | 135.697  | -0.7192837 | 124.695  | 113.6758 | 115.2059 | 57.9 | 29.3 | 114.5327 | 11.3 | 67.8 | 80.7531  | 9.7 | 39.5 | 94.2703  | 43.2 | 107   | 116.2368 | 44.3 | 152.4 | 153.0006 |
| 27.7      | 35.31898 | 136.0771 | 118.9559 | 138.873  | -0.7193779 | 125.3208 | 113.6179 | 115.5058 | 57.9 | 29.3 | 114.9537 | 11.3 | 67.8 | 76.7852  | 9.7 | 39.5 | 84.5464  | 43.2 | 107   | 116.3514 | 44.3 | 152.4 | 155.3829 |
| 27.703333 | 35.31898 | 136.0771 | 118.9409 | 141.2947 | -0.7194647 | 126.8429 | 114.173  | 116.2519 | 57.9 | 29.3 | 114.098  | 11.3 | 67.8 | 72.8162  | 9.7 | 39.5 | 83.2428  | 43.2 | 107   | 119.5503 | 44.3 | 152.4 | 159.3887 |
| 27.706667 | 35.31898 | 136.0771 | 118.9412 | 144.3306 | -0.7195597 | 127.1511 | 113.4305 | 115.8671 | 57.9 | 29.3 | 114.7865 | 11.3 | 67.8 | 65.2053  | 9.7 | 39.5 | 76.8412  | 43.2 | 107   | 117.522  | 44.3 | 152.4 | 162.3959 |
| 27.71     | 35.31898 | 136.0771 | 118.9317 | 146.0639 | -0.7196474 | 127.7982 | 113.1693 | 115.7401 | 57.9 | 29.3 | 115.2687 | 11.3 | 67.8 | 60.878   | 9.7 | 39.5 | 76.4694  | 43.2 | 107   | 116.4621 | 44.3 | 152.4 | 165.3764 |
| 27.713333 | 35.31898 | 136.0771 | 118.9351 | 148.4051 | -0.7197376 | 128.4849 | 113.0893 | 115.9033 | 57.9 | 29.3 | 115.7311 | 11.3 | 67.8 | 53.8867  | 9.7 | 39.5 | 75.5774  | 43.2 | 107   | 116.1669 | 44.3 | 152.4 | 168.0328 |
| 27.716667 | 35.31898 | 136.0771 | 118.9248 | 148.2546 | -0.7198139 | 129.7854 | 114.0667 | 116.6447 | 57.9 | 29.3 | 116.1507 | 11.3 | 67.8 | 61.9969  | 9.7 | 39.5 | 76.7648  | 43.2 | 107   | 117.4013 | 44.3 | 152.4 | 170.1633 |
| 27.72     | 35.31898 | 136.0771 | 118.9286 | 148.5305 | -0.7198946 | 130.5329 | 114.4994 | 116.9371 | 57.9 | 29.3 | 117.9098 | 11.3 | 67.8 | 65.1335  | 9.7 | 39.5 | 79.4062  | 43.2 | 107   | 115.4474 | 44.3 | 152.4 | 171.7193 |
| 27.723333 | 35.31898 | 136.0771 | 118.9183 | 147.4441 | -0.7199743 | 130.1483 | 113.3598 | 115.6425 | 57.9 | 29.3 | 117.1959 | 11.3 | 67.8 | 67.9123  | 9.7 | 39.5 | 79.4434  | 43.2 | 107   | 113.2637 | 44.3 | 152.4 | 173.2741 |
| 27.726667 | 35.31898 | 136.0771 | 118.9141 | 146.5153 | -0.720055  | 129.6751 | 112.1357 | 114.2733 | 57.9 | 29.3 | 117.2239 | 11.3 | 67.8 | 69.6231  | 9.7 | 39.5 | 80.3143  | 43.2 | 107   | 109.7547 | 44.3 | 152.4 | 174.7298 |
| 27.73     | 35.31898 | 136.0771 | 118.9029 | 145.4023 | -0.7201324 | 129.7992 | 111.656  | 113.5761 | 57.9 | 29.3 | 116.2826 | 11.3 | 67.8 | 74.7056  | 9.6 | 39.5 | 80.7724  | 43.2 | 107   | 109.4313 | 44.3 | 152.4 | 176.3835 |
| 27.733333 | 35.31898 | 136.0771 | 118.8853 | 147.3383 | -0.7202176 | 131.1882 | 112.5523 | 114.6007 | 57.9 | 29.3 | 116.0219 | 11.3 | 67.8 | 72.8626  | 9.6 | 39.5 | 79.9733  | 43.2 | 107   | 112.4244 | 44.3 | 152.4 | 179.0377 |
| 27.736667 | 35.31898 | 136.0771 | 118.8752 | 125.4226 | -0.7202874 | 111.9724 | 111.9724 | 113.9513 | 57.9 | 29.3 | 115.8424 | 11.3 | 67.8 | 71.7262  | 9.6 | 39.5 | 83.1288  | 43.2 | 107   | 111.0553 | #N/A | #N/A  | #N/A     |
| 27.74     | 35.31898 | 136.0771 | 118.8568 | 125.0505 | -0.7203655 | 112.6797 | 112.6797 | 114.5665 | 57.9 | 29.3 | 114.8388 | 11.3 | 67.8 | 73.4294  | 9.6 | 39.5 | 86.3911  | 43.2 | 107   | 114.1494 | #N/A | #N/A  | #N/A     |
| 27.743333 | 35.31898 | 136.0771 | 118.848  | 123.5336 | -0.7204432 | 112.3022 | 112.3022 | 114.0144 | 57.9 | 29.3 | 114.638  | 11.3 | 67.8 | 74.6018  | 9.6 | 39.5 | 91.3181  | 43.2 | 107   | 113.0595 | #N/A | #N/A  | #N/A     |
| 27.746667 | 35.31898 | 136.0771 | 118.8447 | 123.2278 | -0.7205215 | 113.0341 | 113.0341 | 114.6584 | 57.9 | 29.3 | 114.6649 | 11.3 | 67.8 | 70.7104  | 9.6 | 39.5 | 102.1843 | 43.2 | 107   | 114.6484 | #N/A | #N/A  | #N/A     |
| 27.75     | 35.31898 | 136.0771 | 118.8273 | 119.4068 | -0.7205843 | 113.7306 | 113.7306 | 114.6965 | 57.9 | 29.3 | 115.1232 | 11.3 | 67.8 | 77.7422  | 9.6 | 39.5 | 122.2159 | 43.2 | 107   | 114.0431 | #N/A | #N/A  | #N/A     |
| 27.753333 | 35.31898 | 136.0771 | 118.8273 | 116.128  | -0.7206531 | 113.6177 | 113.6177 | 114.1348 | 57.9 | 29.3 | 114.7568 | 11.3 | 67.8 | 80.5957  | 9.6 | 39.5 | 137.149  | 43.2 | 107   | 113.1823 | #N/A | #N/A  | #N/A     |
| 27.756667 | 35.31898 | 136.0771 | 118.8275 | 114.4253 | -0.7207212 | 115.252  | 115.252  | 115.3579 | 57.9 | 29.3 | 115.009  | 11.3 | 67.8 | 82.2059  | 9.6 | 39.5 | 156.357  | 43.2 | 107   | 115.8921 | #N/A | #N/A  | #N/A     |
| 27.76     | 35.31898 | 136.0771 | 118.8291 | 114.1917 | -0.7207986 | 116.2078 | 115.2764 | 115.1933 | 57.9 | 29.3 | 115.1163 | 11.3 | 67.8 | 81.9493  | 9.6 | 39.5 | 164.8302 | 43.2 | 107   | 115.3113 | 44.3 | 152.4 | 118.599  |
| 27.763333 | 35.31898 | 136.0771 | 118.8239 | 116.5854 | -0.7208935 | 115.8943 | 115.1221 | 115.4055 | 57.9 | 29.3 | 115.4299 | 11.3 | 67.8 | 81.9587  | 9.6 | 39.5 | 148.8147 | 43.2 | 107   | 115.3682 | 44.3 | 152.4 | 117.877  |
| 27.766667 | 35.31899 | 136.0771 | 118.7982 | 119.8085 | -0.720991  | 115.836  | 114.7775 | 115.4977 | 57.9 | 29.3 | 115.4953 | 11.3 | 67.8 | 82.4989  | 9.6 | 39.5 | 128.6211 | 43.2 | 107   | 115.5015 | 44.3 | 152.4 | 118.5536 |
| 27.77     | 35.31899 | 136.0771 | 118.7763 | 122.2332 | -0.7210842 | 115.9288 | 114.9836 | 116.0274 | 57.9 | 29.3 | 115.685  | 11.3 | 67.8 | 84.015   | 9.6 | 39.5 | 113.2156 | 43.2 | 107.1 | 116.5518 | 44.3 | 152.4 | 118.3557 |
| 27.773333 | 35.31899 | 136.0771 | 118.7555 | 123.207  | -0.7211719 | 115.8099 | 114.3507 | 115.5234 | 57.9 | 29.3 | 115.4817 | 11.3 | 67.8 | 83.3082  | 9.6 | 39.5 | 107.189  | 43.2 | 107.1 | 115.5873 | 44.3 | 152.4 | 119.5563 |
| 27.776667 | 35.31899 | 136.0771 | 118.7278 | 125.5295 | -0.7212662 | 115.5507 | 114.0956 | 115.5996 | 57.8 | 29.3 | 115.5049 | 11.3 | 67.8 | 86.9543  | 9.6 | 39.5 | 87.5014  | 43.2 | 107.1 | 115.7444 | 44.3 | 152.4 | 119.2819 |
| 27.78     | 35.31899 | 136.0771 | 118.697  | 123.5309 | -0.7213475 | 113.8922 | 113.8558 | 115.3134 | 57.8 | 29.3 | 115.4463 | 11.3 | 67.8 | 89.6219  | 9.6 | 39.5 | 85.2238  | 43.2 | 107.1 | 115.1103 | 44.3 | 152.4 | 113.9857 |
| 27.783333 | 35.31899 | 136.0771 | 118.6607 | 123.264  | -0.7214312 | 113.4279 | 113.4634 | 114.9333 | 57.8 | 29.3 | 115.3662 | 11.3 | 67.8 | 90.0667  | 9.6 | 39.5 | 83.1533  | 43.2 | 107.1 | 114.2718 | 44.3 | 152.4 | 113.3369 |
| 27.786667 | 35.31899 | 136.0771 | 118.64   | 124.5699 | -0.7215162 | 114.232  | 113.8601 | 115.4051 | 57.8 | 29.3 | 11       |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 27.793333 | 35.31899 | 136.0771 | 118.6051 | 125.6612 | -0.7216863 | 114.3114 | 113.9515 | 115.6364 | 57.8 | 29.3 | 115.3716 | 11.3 | 67.8 | 92.1087  | 9.6 | 39.5 | 72.3381  | 43.2 | 107.1 | 116.041  | 44.3 | 152.4 | 115.2343 |
| 27.796667 | 35.31899 | 136.0771 | 118.5986 | 125.5556 | -0.721769  | 114.2102 | 113.7233 | 115.3962 | 57.8 | 29.4 | 115.3737 | 11.3 | 67.8 | 91.9278  | 9.6 | 39.5 | 72.5529  | 43.2 | 107.1 | 115.4307 | 44.3 | 152.4 | 115.4589 |
| 27.8      | 35.31899 | 136.0771 | 118.5965 | 122.8213 | -0.7218391 | 114.3175 | 114.3211 | 115.6182 | 57.8 | 29.4 | 115.5397 | 11.3 | 67.8 | 92.453   | 9.6 | 39.5 | 89.2595  | 43.2 | 107.1 | 115.7382 | 44.3 | 152.4 | 114.3081 |
| 27.803333 | 35.31899 | 136.0771 | 118.5864 | 120.7582 | -0.7219112 | 114.6239 | 114.5919 | 115.5693 | 57.8 | 29.4 | 115.4573 | 11.3 | 67.8 | 92.2697  | 9.6 | 39.5 | 103.7764 | 43.2 | 107.1 | 115.7405 | 44.3 | 152.4 | 114.706  |
| 27.806667 | 35.31899 | 136.0771 | 118.5777 | 120.0299 | -0.7219877 | 115.3005 | 114.7822 | 115.5528 | 57.8 | 29.4 | 115.3132 | 11.3 | 67.8 | 94.3953  | 9.6 | 39.5 | 110.1531 | 43.1 | 107.1 | 115.9202 | 44.3 | 152.4 | 116.6277 |
| 27.81     | 35.31899 | 136.0771 | 118.5822 | 118.5269 | -0.722062  | 115.677  | 114.9554 | 115.4407 | 57.8 | 29.4 | 115.2108 | 11.3 | 67.8 | 98.5624  | 9.6 | 39.5 | 116.9489 | 43.1 | 107.1 | 115.7932 | 44.3 | 152.4 | 117.5246 |
| 27.813333 | 35.31899 | 136.0771 | 118.5874 | 117.0731 | -0.7221341 | 116.6205 | 115.2635 | 115.3524 | 57.8 | 29.4 | 115.2315 | 11.3 | 67.8 | 107.5185 | 9.6 | 39.5 | 122.174  | 43.1 | 107.1 | 115.5379 | 44.3 | 152.4 | 120.0955 |
| 27.816667 | 35.31899 | 136.0771 | 118.5825 | 117.113  | -0.7222116 | 117.8368 | 115.3558 | 115.2795 | 57.8 | 29.4 | 115.2106 | 11.3 | 67.8 | 104.6665 | 9.6 | 39.5 | 133.3541 | 43.1 | 107.1 | 115.3853 | 44.3 | 152.5 | 124.1902 |
| 27.82     | 35.31898 | 136.0771 | 118.5848 | 117.0385 | -0.7222864 | 119.526  | 115.4329 | 115.0837 | 57.8 | 29.4 | 115.004  | 11.3 | 67.8 | 105.1867 | 9.6 | 39.5 | 144.4307 | 43.1 | 107.1 | 115.206  | 44.3 | 152.5 | 130.0074 |
| 27.823333 | 35.31898 | 136.0771 | 118.59   | 118.7713 | -0.7223683 | 121.454  | 115.2276 | 114.7814 | 57.8 | 29.4 | 114.9205 | 11.3 | 67.8 | 108.7251 | 9.6 | 39.5 | 143.1828 | 43.1 | 107.1 | 114.568  | 44.3 | 152.5 | 137.3984 |
| 27.826667 | 35.31898 | 136.0771 | 118.6015 | 120.5245 | -0.7224512 | 123.178  | 115.0899 | 114.6187 | 57.8 | 29.4 | 114.9188 | 11.3 | 67.8 | 106.7575 | 9.6 | 39.5 | 146.6359 | 43.1 | 107.1 | 114.1584 | 44.3 | 152.5 | 143.8899 |
| 27.83     | 35.31898 | 136.0771 | 118.5972 | 122.9409 | -0.7225322 | 125.9938 | 115.8072 | 115.2773 | 57.8 | 29.4 | 114.8762 | 11.3 | 67.8 | 105.941  | 9.6 | 39.5 | 151.9658 | 43.1 | 107.1 | 115.8924 | 44.3 | 152.5 | 152.0796 |
| 27.833333 | 35.31898 | 136.0771 | 118.6247 | 126.8456 | -0.7226174 | 129.3517 | 116.3123 | 115.8858 | 57.8 | 29.4 | 114.7511 | 11.3 | 67.8 | 97.4926  | 9.6 | 39.5 | 160.4336 | 43.1 | 107.1 | 117.6261 | 44.3 | 152.5 | 162.7428 |
| 27.836667 | 35.31898 | 136.0771 | 118.6275 | 129.5113 | -0.7226964 | 132.8581 | 116.4    | 115.7271 | 57.8 | 29.4 | 114.79   | 11.3 | 67.8 | 107.5045 | 9.6 | 39.5 | 157.3007 | 43.1 | 107.1 | 117.1643 | 44.3 | 152.5 | 175.0039 |
| 27.84     | 35.31898 | 136.0771 | 118.6466 | 111.856  | -0.72278   | 115.0475 | 115.0475 | 114.7643 | 57.8 | 29.4 | 114.5816 | 11.3 | 67.8 | 92.4843  | 9.6 | 39.5 | 158.2419 | 43.1 | 107.1 | 115.0445 | #N/A | #N/A  | #N/A     |
| 27.843333 | 35.31898 | 136.0771 | 118.6497 | 110.5756 | -0.7228566 | 115.164  | 115.164  | 114.6943 | 57.8 | 29.4 | 114.5177 | 11.3 | 67.8 | 92.3732  | 9.6 | 39.5 | 166.6045 | 43.1 | 107.1 | 114.9652 | #N/A | #N/A  | #N/A     |
| 27.846667 | 35.31898 | 136.0771 | 118.6683 | 108.9582 | -0.7229328 | 115.0315 | 115.0315 | 114.3035 | 57.8 | 29.4 | 114.3904 | 11.3 | 67.8 | 100.2546 | 9.6 | 39.5 | 166.3939 | 43.1 | 107.1 | 114.1703 | #N/A | #N/A  | #N/A     |
| 27.85     | 35.31898 | 136.0772 | 118.458  | 106.5785 | -0.723008  | 114.367  | 114.367  | 113.362  | 57.8 | 29.4 | 114.2846 | 11.3 | 67.8 | 102.2721 | 9.6 | 39.5 | 173.813  | 43.1 | 107.1 | 111.9469 | #N/A | #N/A  | #N/A     |
| 27.853333 | 35.31898 | 136.0772 | 118.4683 | 107.1635 | -0.7230948 | 114.047  | 114.047  | 113.1936 | 57.8 | 29.4 | 114.0751 | 11.3 | 67.7 | 97.2767  | 9.6 | 39.5 | 173.4955 | 43.1 | 107.1 | 111.8416 | #N/A | #N/A  | #N/A     |
| 27.856667 | 35.31898 | 136.0772 | 118.4829 | 109.6177 | -0.7231933 | 112.9153 | 112.9153 | 112.585  | 57.8 | 29.4 | 113.9883 | 11.3 | 67.7 | 86.3345  | 9.6 | 39.5 | 163.6613 | 43.1 | 107.1 | 110.4327 | #N/A | #N/A  | #N/A     |
| 27.86     | 35.31898 | 136.0772 | 118.5007 | 110.5821 | -0.7232756 | 113.9756 | 113.9756 | 113.6585 | 57.8 | 29.4 | 114.0671 | 11.3 | 67.7 | 88.9717  | 9.6 | 39.5 | 161.9789 | 43.1 | 107.1 | 113.0319 | #N/A | #N/A  | #N/A     |
| 27.863333 | 35.31898 | 136.0772 | 118.5298 | 109.7114 | -0.7233584 | 113.0392 | 114.2663 | 113.9433 | 57.8 | 29.4 | 114.2077 | 11.3 | 67.7 | 94.8906  | 9.6 | 39.5 | 154.752  | 43.1 | 107.1 | 113.5378 | 44.3 | 152.5 | 109.897  |
| 27.866667 | 35.31898 | 136.0772 | 118.5426 | 111.594  | -0.7234458 | 113.877  | 114.1564 | 113.9436 | 57.8 | 29.4 | 114.5944 | 11.3 | 67.7 | 94.9541  | 9.6 | 39.5 | 149.7164 | 43.1 | 107.1 | 112.9455 | 44.3 | 152.5 | 113.1616 |
| 27.87     | 35.31898 | 136.0772 | 118.5704 | 109.215  | -0.7235125 | 115.0891 | 114.3037 | 113.5919 | 57.8 | 29.4 | 113.085  | 11.3 | 67.7 | 99.9801  | 9.6 | 39.5 | 164.3537 | 43.1 | 107.1 | 114.3693 | 44.3 | 152.5 | 117.1002 |
| 27.873333 | 35.31898 | 136.0772 | 118.5992 | 105.6006 | -0.7235905 | 112.5269 | 112.6467 | 111.7873 | 57.8 | 29.4 | 110.4404 | 11.3 | 67.7 | 106.6066 | 9.6 | 39.5 | 157.537  | 43.1 | 107.1 | 113.8531 | 44.3 | 152.5 | 112.22   |
| 27.876667 | 35.31898 | 136.0772 | 118.627  | 108.0107 | -0.7236778 | 113.9094 | 113.7142 | 112.8833 | 57.8 | 29.4 | 113.4866 | 11.3 | 67.7 | 113.4961 | 9.6 | 39.5 | 149.3585 | 43.1 | 107.1 | 111.9579 | 44.3 | 152.5 | 114.4092 |
| 27.88     | 35.31897 | 136.0772 | 118.6602 | 108.8009 | -0.7237622 | 114.433  | 114.433  | 113.632  | 57.8 | 29.4 | 114.5941 | 11.3 | 67.7 | 115.947  | 9.6 | 39.5 | 146.4108 | 43.1 | 107.1 | 112.1563 | #N/A | #N/A  | #N/A     |
| 27.883333 | 35.31897 | 136.0772 | 118.6818 | 108.8006 | -0.7238493 | 113.419  | 113.419  | 112.7591 | 57.8 | 29.4 | 112.774  | 11.3 | 67.7 | 119.7263 | 9.6 | 39.5 | 132.7813 | 43.1 | 107.1 | 112.7362 | #N/A | #N/A  | #N/A     |
| 27.886667 | 35.31897 | 136.0772 | 118.7171 | 110.0085 | -0.7239348 | 113.9955 | 113.9955 | 113.3808 | 57.8 | 29.4 | 113.4065 | 11.3 | 67.7 | 126.7028 | 9.6 | 39.5 | 122.6003 | 43.1 | 107.1 | 113.3413 | #N/A | #N/A  | #N/A     |
| 27.89     | 35.31897 | 136.0772 | 118.7303 | 109.7445 | -0.7240203 | 113.0655 | 116.0974 | 115.6378 | 57.8 | 29.4 | 116.3077 | 11.3 | 67.7 | 122.2265 | 9.6 | 39.5 | 127.1815 | 43.1 | 107.1 | 114.6104 | 44.3 | 152.5 | 105.3016 |
| 27.893333 | 35.31897 | 136.0772 | 118.7339 | 112.0864 | -0.7241141 | 112.9221 | 116.3311 | 116.2361 | 57.8 | 29.4 | 117.0851 | 11.3 | 67.7 | 118.5474 | 9.6 | 39.5 | 117.3095 | 43.1 | 107.1 | 114.934  | 44.3 | 152.5 | 104.1924 |
| 27.896667 | 35.31897 | 136.0772 | 118.7498 | 112.984  | -0.7241996 | 113.1994 | 115.7359 | 115.7001 | 57.8 | 29.4 | 116.5211 | 11.3 | 67.7 | 119.6648 | 9.6 | 39.5 | 111.8338 | 43.1 | 107.1 | 114.441  | 44.3 | 152.5 | 106.7038 |
| 27.9      | 35.31897 | 136.0772 | 118.7599 | 111.9588 | -0.7242753 | 113.738  | 116.9574 | 116.7323 | 57.8 | 29.4 | 117.4829 | 11.3 | 67.7 | 119.3547 | 9.6 | 39.5 | 123.2221 | 43.1 | 107.1 | 115.5811 | 44.3 | 152.5 | 105.4937 |
| 27.903333 | 35.31897 | 136.0772 | 118.777  | 113.4053 | -0.7243623 | 114.2288 | 117.3227 | 117.2617 | 57.8 | 29.4 | 117.8466 | 11.3 | 67.7 | 114.8767 | 9.6 | 39.5 | 123.2938 | 43.1 | 107.1 | 116.3646 | 44.3 | 152.5 | 106.3059 |
| 27.906667 | 35.31897 | 136.0773 | 118.7912 | 113.1348 | -0.7244467 | 113.6003 | 117.1362 | 117.1452 | 57.8 | 29.4 | 117.7769 | 11.3 | 67.7 | 112.3476 | 9.6 | 39.5 | 123.3671 | 43.1 | 107.1 | 116.1763 | 44.3 | 152.5 | 104.5455 |
| 27.91     | 35.31897 | 136.0773 | 118.8068 | 113.8117 | -0.7245384 | 112.2602 | 114.4777 | 114.818  | 57.8 | 29.4 | 114.2218 | 11.3 | 67.7 | 103.8766 | 9.6 | 39.5 | 114.6376 | 43.1 | 107.1 | 115.7324 | 44.3 | 152.5 | 106.5817 |
| 27.913333 | 35.31896 | 136.0773 | 118.8326 | 116.6427 | -0.7246359 | 111.7932 | 114.653  | 115.4714 | 57.8 | 29.4 | 115.1412 | 11.3 | 67.7 | 100.105  | 9.6 | 39.5 | 99.928   | 43.1 | 107.1 | 115.9779 | 44.3 | 152.5 | 104.4699 |
| 27.916667 | 35.31896 | 136.0773 | 118.8617 | 119.3668 | -0.7247222 | 113.7021 | 116.5219 | 117.4351 | 57.8 | 29.4 | 117.8756 | 11.3 | 67.7 | 100.0589 | 9.6 | 39.5 | 100.4117 | 43.1 | 107.1 | 116.7594 | 44.3 | 152.5 | 106.481  |
| 27.92     | 35.31896 | 136.0773 | 118.8879 | 118.5627 | -0.7248026 | 113.4146 | 116.4494 | 117.3087 | 57.8 | 29.4 | 117.9903 | 11.3 | 67.7 | 96.4606  | 9.6 | 39.5 | 107.4969 | 43.1 | 107.1 | 116.2632 | 44.3 | 152.5 | 105.6433 |
| 27.923333 | 35.31896 | 136.0773 | 118.9057 | 119.7093 | -0.7248889 | 113.7715 | 115.6343 | 116.6075 | 57.8 | 29.4 | 116.7226 | 11.3 | 67.7 | 94.4601  | 9.6 | 39.5 | 103.4723 | 43.1 | 107.1 | 116.431  | 44.3 | 152.5 | 109.0014 |
| 27.926667 | 35.31896 | 136.0773 | 118.9265 | 119.4997 | -0.7249702 | 113.8834 | 114.9857 | 115.9306 | 57.8 | 29.4 | 115.3115 | 11.3 | 67.7 | 93.2566  | 9.6 | 39.5 | 104.7937 | 43.1 | 107.1 | 116.8801 | 44.3 | 152.5 | 111.0608 |
| 27.93     | 35.31896 | 136.0773 | 118.9455 | 121.6669 | -0.7250579 | 114.9348 | 116.1413 | 117.2301 | 57.8 | 29.4 | 117.1166 | 11.3 | 67.7 | 93.2059  | 9.6 | 39.5 | 101.4951 | 43.1 | 107.1 | 117.4042 | 44.3 | 152.5 | 111.8453 |
| 27.933333 | 35.31896 | 136.0773 | 118.9487 | 121.0452 | -0.725138  | 114.8785 | 115.4835 | 116.4971 | 57.8 | 29.4 | 115.5803 | 11.3 | 67.7 | 95.106   | 9.6 | 39.5 | 100.5056 | 43.1 | 107.1 | 117.9031 | 44.3 | 152.5 | 113.3293 |
| 27.936667 | 35.31896 | 136.0773 | 118.9649 | 120.5057 | -0.7252194 | 114.6283 | 115.2683 | 116.2616 | 57.8 | 29.4 | 115.1162 | 11.3 | 67.7 | 93.1899  | 9.6 | 39.5 | 103.5001 | 43.1 | 107.1 | 118.0183 | 44.3 | 152.5 | 112.9894 |
| 27.94     | 35.31896 | 136.0773 | 118.9665 | 119.2998 | -0.725297  | 114.5732 | 114.9341 | 115.7171 | 57.8 | 29.4 | 114.5077 | 11.3 | 67.7 | 101.0295 | 9.6 | 39.5 | 100.8302 | 43.1 | 107.1 | 117.5719 | 44.3 | 152.5 | 113.649  |
| 27.943333 | 35.31895 | 136.0773 | 118.9902 | 119.3476 |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|            |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|------------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 27.95      | 35.31895 | 136.0773 | 119.0277 | 119.7081 | -0.7255357 | 117.0894 | 118.2765 | 118.7013 | 57.8 | 29.4 | 119.1142 | 11.3 | 67.7 | 108.6632 | 9.6 | 39.5 | 113.4778 | 43.1 | 107.1 | 118.0681 | 44.3 | 152.5 | 114.0497 |
| 27.9533333 | 35.31895 | 136.0773 | 119.0332 | 116.3737 | -0.7256099 | 115.6549 | 116.2494 | 116.4305 | 57.8 | 29.4 | 115.555  | 11.3 | 67.7 | 109.755  | 9.6 | 39.5 | 117.5155 | 43.1 | 107.1 | 117.7732 | 44.3 | 152.5 | 114.1325 |
| 27.956667  | 35.31895 | 136.0773 | 119.0397 | 116.9354 | -0.7256903 | 116.7294 | 117.0576 | 117.1374 | 57.8 | 29.4 | 116.6157 | 11.3 | 67.7 | 112.7081 | 9.6 | 39.5 | 119.6667 | 43.1 | 107.1 | 117.9376 | 44.3 | 152.5 | 115.8889 |
| 27.96      | 35.31895 | 136.0773 | 119.0301 | 117.7723 | -0.725772  | 117.7789 | 118.0654 | 118.1025 | 57.8 | 29.4 | 118.3364 | 11.3 | 67.7 | 111.3146 | 9.6 | 39.5 | 125.8063 | 43.1 | 107.1 | 117.7438 | 44.3 | 152.5 | 117.0452 |
| 27.9633333 | 35.31895 | 136.0773 | 118.9919 | 119.8307 | -0.7258625 | 118.0863 | 118.7728 | 119.0876 | 57.8 | 29.4 | 119.9735 | 11.3 | 67.7 | 103.1838 | 9.6 | 39.5 | 126.9031 | 43.1 | 107.1 | 117.7289 | 44.3 | 152.5 | 116.3284 |
| 27.966667  | 35.31895 | 136.0774 | 118.9555 | 116.5544 | -0.7259376 | 116.5144 | 117.8039 | 117.9194 | 57.8 | 29.4 | 118.1866 | 11.3 | 67.7 | 102.1414 | 9.6 | 39.5 | 134.5138 | 43.1 | 107.1 | 117.5095 | 44.3 | 152.5 | 113.2123 |
| 27.97      | 35.31895 | 136.0774 | 118.9011 | 115.4477 | -0.726015  | 116.5912 | 117.8689 | 117.8359 | 57.8 | 29.4 | 118.0087 | 11.3 | 67.7 | 100.4805 | 9.6 | 39.5 | 143.2807 | 43.1 | 107.1 | 117.5708 | 44.3 | 152.5 | 113.3192 |
| 27.9733333 | 35.31895 | 136.0774 | 118.8307 | 118.1045 | -0.7261116 | 116.1453 | 116.9346 | 117.3565 | 57.8 | 29.4 | 117.2939 | 11.3 | 67.7 | 94.56    | 9.6 | 39.5 | 129.8796 | 43.1 | 107.1 | 117.4524 | 44.3 | 152.5 | 114.1242 |
| 27.976667  | 35.31895 | 136.0774 | 118.7739 | 120.6135 | -0.7262059 | 116.0443 | 116.8988 | 117.662  | 57.8 | 29.4 | 117.6929 | 11.3 | 67.7 | 96.8859  | 9.6 | 39.5 | 112.0636 | 43.1 | 107.1 | 117.6147 | 44.3 | 152.5 | 113.8561 |
| 27.98      | 35.31895 | 136.0774 | 118.7059 | 121.387  | -0.7262886 | 116.7392 | 116.7392 | 117.4621 | 57.8 | 29.4 | 117.3901 | 11.3 | 67.7 | 101.2508 | 9.6 | 39.5 | 107.3746 | 43.1 | 107.2 | 117.5725 | #N/A | #N/A  | #N/A     |
| 27.9833333 | 35.31895 | 136.0774 | 118.6522 | 119.7248 | -0.7263629 | 116.995  | 116.995  | 117.4191 | 57.8 | 29.4 | 117.3139 | 11.3 | 67.7 | 108.3606 | 9.6 | 39.5 | 110.8794 | 43.1 | 107.2 | 117.5804 | #N/A | #N/A  | #N/A     |
| 27.986667  | 35.31895 | 136.0774 | 118.5778 | 118.6418 | -0.7264427 | 116.5469 | 116.5469 | 116.8716 | 57.8 | 29.4 | 116.4537 | 11.4 | 67.7 | 112.3693 | 9.6 | 39.5 | 108.6045 | 43.1 | 107.2 | 117.5126 | #N/A | #N/A  | #N/A     |
| 27.99      | 35.31895 | 136.0774 | 118.5363 | 115.3964 | -0.7265056 | 117.8146 | 117.8146 | 117.475  | 57.8 | 29.5 | 117.4291 | 11.4 | 67.7 | 120.1874 | 9.6 | 39.5 | 128.9259 | 43.1 | 107.2 | 117.5455 | #N/A | #N/A  | #N/A     |
| 27.9933333 | 35.31895 | 136.0774 | 118.4756 | 115.1117 | -0.7265891 | 117.3059 | 117.9217 | 117.7211 | 57.8 | 29.5 | 117.8474 | 11.4 | 67.7 | 103.7098 | 9.6 | 39.5 | 146.4164 | 43.1 | 107.2 | 117.5275 | 44.3 | 152.5 | 115.7282 |
| 27.996667  | 35.31895 | 136.0774 | 118.4254 | 113.2175 | -0.7266694 | 115.9259 | 118.078  | 117.8819 | 57.8 | 29.5 | 118.0586 | 11.4 | 67.7 | 96.6312  | 9.6 | 39.5 | 156.5469 | 43.1 | 107.2 | 117.6109 | 44.3 | 152.5 | 110.4117 |
| 28         | 35.31895 | 136.0774 | 118.3786 | 116.5555 | -0.7267631 | 116.8163 | 117.6575 | 117.7887 | 57.8 | 29.5 | 117.734  | 11.4 | 67.7 | 94.9574  | 9.6 | 39.5 | 143.9664 | 43.1 | 107.2 | 117.8726 | 44.3 | 152.5 | 114.661  |
| 28.0033333 | 35.31895 | 136.0774 | 118.33   | 119.2078 | -0.7268597 | 116.3335 | 117.1604 | 117.6738 | 57.8 | 29.5 | 117.5734 | 11.4 | 67.7 | 101.9753 | 9.6 | 39.5 | 116.6548 | 43.1 | 107.2 | 117.8279 | 44.3 | 152.5 | 114.2149 |
| 28.006667  | 35.31895 | 136.0774 | 118.2921 | 120.7746 | -0.7269532 | 115.4781 | 116.0872 | 116.9419 | 57.8 | 29.5 | 116.4431 | 11.4 | 67.7 | 100.2077 | 9.5 | 39.5 | 101.7487 | 43.1 | 107.2 | 117.7068 | 44.3 | 152.5 | 113.9181 |
| 28.01      | 35.31895 | 136.0774 | 118.2489 | 123.6124 | -0.7270481 | 115.589  | 115.8213 | 117.0192 | 57.8 | 29.5 | 116.5503 | 11.4 | 67.7 | 102.2568 | 9.5 | 39.5 | 83.2597  | 43.1 | 107.2 | 117.7383 | 44.3 | 152.5 | 114.9941 |
| 28.0133333 | 35.31895 | 136.0774 | 118.2015 | 122.5086 | -0.7271217 | 116.519  | 116.2163 | 117.0703 | 57.8 | 29.5 | 116.7814 | 11.4 | 67.7 | 110.2432 | 9.5 | 39.5 | 87.6992  | 43.1 | 107.2 | 117.5133 | 44.3 | 152.5 | 117.2942 |
| 28.016667  | 35.31895 | 136.0774 | 118.1729 | 121.7688 | -0.7272003 | 116.6916 | 116.6117 | 117.257  | 57.8 | 29.5 | 117.0536 | 11.4 | 67.7 | 123.0133 | 9.5 | 39.5 | 79.4095  | 43.1 | 107.2 | 117.569  | 44.3 | 152.5 | 116.8961 |
| 28.02      | 35.31895 | 136.0774 | 118.1458 | 116.4531 | -0.7272581 | 116.9457 | 117.3548 | 117.1477 | 57.8 | 29.5 | 117.0364 | 11.4 | 67.7 | 139.0631 | 9.5 | 39.5 | 95.2144  | 43.1 | 107.2 | 117.3184 | 44.3 | 152.5 | 115.8981 |
| 28.0233333 | 35.31895 | 136.0774 | 118.108  | 113.8268 | -0.7273315 | 116.38   | 117.8353 | 117.318  | 57.8 | 29.5 | 117.3482 | 11.4 | 67.7 | 146.2468 | 9.5 | 39.5 | 99.5502  | 43.1 | 107.2 | 117.2717 | 44.3 | 152.5 | 112.6529 |
| 28.026667  | 35.31895 | 136.0774 | 118.0771 | 111.1499 | -0.7274033 | 116.1319 | 117.7437 | 116.9067 | 57.8 | 29.5 | 116.7328 | 11.4 | 67.7 | 146.5132 | 9.5 | 39.5 | 112.8313 | 43.1 | 107.2 | 117.1734 | 44.3 | 152.5 | 112.0041 |
| 28.03      | 35.31895 | 136.0774 | 118.0488 | 111.1978 | -0.7274862 | 116.133  | 117.8522 | 117.0643 | 57.8 | 29.5 | 117.024  | 11.4 | 67.7 | 140.1319 | 9.5 | 39.5 | 120.1147 | 43.1 | 107.2 | 117.126  | 44.3 | 152.5 | 111.73   |
| 28.0333333 | 35.31895 | 136.0774 | 118.0241 | 110.9371 | -0.7275711 | 115.3684 | 117.9689 | 117.2838 | 57.8 | 29.5 | 117.4178 | 11.4 | 67.7 | 136.7643 | 9.5 | 39.5 | 120.7645 | 43.1 | 107.2 | 117.0782 | 44.3 | 152.5 | 108.7085 |
| 28.036667  | 35.31895 | 136.0774 | 117.9939 | 112.4157 | -0.7276615 | 115.1215 | 117.304  | 116.8981 | 57.8 | 29.5 | 116.9452 | 11.4 | 67.7 | 128.7838 | 9.5 | 39.5 | 118.4653 | 43.1 | 107.2 | 116.8258 | 44.3 | 152.5 | 109.5321 |
| 28.04      | 35.31895 | 136.0774 | 117.9758 | 116.0726 | -0.7277637 | 114.406  | 116.4556 | 116.7448 | 57.8 | 29.5 | 116.7407 | 11.4 | 67.7 | 112.8259 | 9.5 | 39.5 | 109.106  | 43.1 | 107.2 | 116.751  | 44.3 | 152.5 | 109.1568 |
| 28.0433333 | 35.31895 | 136.0774 | 117.9536 | 116.7519 | -0.7278527 | 113.6521 | 116.0903 | 116.5865 | 57.8 | 29.5 | 116.5774 | 11.4 | 67.7 | 111.5812 | 9.5 | 39.5 | 101.0105 | 43.1 | 107.2 | 116.6004 | 44.3 | 152.5 | 107.408  |
| 28.046667  | 35.31895 | 136.0774 | 117.9362 | 118.9032 | -0.7279446 | 113.746  | 115.8216 | 116.6075 | 57.8 | 29.5 | 116.6608 | 11.4 | 67.7 | 108.2988 | 9.5 | 39.5 | 92.486   | 43.1 | 107.2 | 116.5257 | 44.3 | 152.5 | 108.4302 |
| 28.05      | 35.31895 | 136.0774 | 117.9106 | 121.3489 | -0.7280371 | 113.9806 | 115.4579 | 116.5804 | 57.7 | 29.5 | 116.682  | 11.4 | 67.7 | 100.7595 | 9.5 | 39.5 | 87.8581  | 43.1 | 107.2 | 116.4249 | 44.3 | 152.5 | 110.202  |
| 28.0533333 | 35.31895 | 136.0774 | 117.8866 | 121.882  | -0.7281203 | 114.3826 | 115.3343 | 116.4656 | 57.7 | 29.5 | 116.6419 | 11.4 | 67.7 | 100.1337 | 9.5 | 39.5 | 88.0762  | 43.1 | 107.2 | 116.1957 | 44.3 | 152.5 | 111.9483 |
| 28.056667  | 35.31895 | 136.0774 | 117.8624 | 122.1026 | -0.7282035 | 114.4885 | 115.1994 | 116.3632 | 57.7 | 29.5 | 116.5389 | 11.4 | 67.7 | 96.9346  | 9.5 | 39.5 | 90.9258  | 43.1 | 107.2 | 116.0942 | 44.3 | 152.5 | 112.6704 |
| 28.06      | 35.31895 | 136.0774 | 117.842  | 122.8772 | -0.7282885 | 114.724  | 115.0106 | 116.2956 | 57.7 | 29.5 | 116.4764 | 11.4 | 67.7 | 88.6841  | 9.5 | 39.5 | 97.0423  | 43.1 | 107.2 | 116.0188 | 44.3 | 152.5 | 113.991  |
| 28.0633333 | 35.31895 | 136.0774 | 117.8166 | 124.6661 | -0.7283799 | 114.5658 | 114.7723 | 116.3731 | 57.7 | 29.5 | 116.5384 | 11.4 | 67.7 | 80.7859  | 9.5 | 39.5 | 94.0921  | 43.1 | 107.2 | 116.1202 | 44.3 | 152.5 | 114.0376 |
| 28.066667  | 35.31895 | 136.0774 | 117.7989 | 125.3736 | -0.7284663 | 114.4185 | 114.5004 | 116.2177 | 57.7 | 29.5 | 116.4144 | 11.4 | 67.7 | 79.8893  | 9.5 | 39.5 | 89.6658  | 43.1 | 107.2 | 115.9166 | 44.3 | 152.5 | 114.2091 |
| 28.07      | 35.31895 | 136.0774 | 117.7783 | 123.0528 | -0.7285374 | 114.697  | 114.8401 | 116.1567 | 57.7 | 29.5 | 116.331  | 11.4 | 67.7 | 87.5859  | 9.5 | 39.5 | 96.8344  | 43.1 | 107.2 | 115.8899 | 44.3 | 152.5 | 114.3309 |
| 28.0733333 | 35.31895 | 136.0774 | 117.7577 | 117.2893 | -0.7285902 | 115.6025 | 115.9352 | 116.2913 | 57.7 | 29.5 | 116.3703 | 11.4 | 67.7 | 98.1167  | 9.5 | 39.5 | 126.0441 | 43.1 | 107.2 | 116.1705 | 44.3 | 152.5 | 114.7515 |
| 28.076667  | 35.31895 | 136.0774 | 117.7436 | 112.1669 | -0.7286474 | 116.174  | 116.6928 | 116.2429 | 57.7 | 29.5 | 116.3076 | 11.4 | 67.7 | 104.66   | 9.5 | 39.5 | 153.4617 | 43.1 | 107.2 | 116.1438 | 44.3 | 152.5 | 114.8469 |
| 28.08      | 35.31895 | 136.0774 | 117.726  | 112.0791 | -0.7287297 | 116.1544 | 116.4916 | 116.0752 | 57.7 | 29.5 | 116.1819 | 11.4 | 67.7 | 97.6423  | 9.5 | 39.5 | 161.5856 | 43.1 | 107.2 | 115.9118 | 44.3 | 152.5 | 115.2918 |
| 28.0833333 | 35.31895 | 136.0774 | 117.6994 | 113.1973 | -0.7288171 | 116.2109 | 116.2988 | 115.9489 | 57.7 | 29.5 | 115.891  | 11.4 | 67.7 | 108.6128 | 9.5 | 39.5 | 142.4959 | 43.1 | 107.2 | 116.0375 | 44.3 | 152.5 | 115.986  |
| 28.086667  | 35.31895 | 136.0774 | 117.6793 | 113.6357 | -0.7289031 | 115.8866 | 116.0453 | 115.7744 | 57.7 | 29.5 | 115.6205 | 11.4 | 67.7 | 112.4887 | 9.5 | 39.5 | 132.8947 | 43.1 | 107.2 | 116.0098 | 44.3 | 152.5 | 115.4808 |
| 28.09      | 35.31895 | 136.0774 | 117.6697 | 113.7121 | -0.7289875 | 115.5742 | 115.9152 | 115.6594 | 57.7 | 29.5 | 115.4325 | 11.4 | 67.7 | 118.5844 | 9.5 | 39.5 | 123.1809 | 43.1 | 107.2 | 116.0067 | 44.3 | 152.6 | 114.7019 |
| 28.0933333 | 35.31895 | 136.0774 | 117.662  | 114.5384 | -0.729075  | 115.3162 | 115.7153 | 115.5831 | 57.7 | 29.5 | 115.4914 | 11.4 | 67.6 | 121.1324 | 9.5 | 39.5 | 113.6778 | 43.1 | 107.2 | 115.7234 | 44.3 | 152.6 | 114.2955 |
| 28.096667  | 35.31895 | 136.0774 | 117.6621 | 115.1804 | -0.7291627 | 114.8179 | 115.3955 | 115.4172 | 57.7 | 29.5 | 115.3028 | 11.4 | 67.6 | 121.4604 | 9.5 | 39.5 | 105.7556 | 43.1 | 107.2 | 115.5922 | 44.  |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |    |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|----|-------|----------|------|-------|----------|
| 28.106667 | 35.31895 | 136.0774 | 117.6408 | 121.8556 | -0.7294454 | 113.7026 | 114.0383 | 115.2141 | 57.7 | 29.5 | 115.2091 | 11.4 | 67.6 | 104.7309 | 9.5 | 39.5 | 76.4686  | 43 | 107.2 | 115.2219 | 44.3 | 152.6 | 112.8453 |
| 28.11     | 35.31895 | 136.0774 | 117.6265 | 123.0047 | -0.729534  | 113.5206 | 113.8856 | 115.2475 | 57.7 | 29.5 | 115.2671 | 11.4 | 67.6 | 103.7296 | 9.5 | 39.5 | 69.479   | 43 | 107.2 | 115.2174 | 44.3 | 152.6 | 112.5882 |
| 28.113333 | 35.31895 | 136.0774 | 117.6208 | 122.0276 | -0.7296124 | 113.4962 | 113.8744 | 115.0638 | 57.7 | 29.5 | 115.2002 | 11.4 | 67.6 | 109.3719 | 9.5 | 39.5 | 68.8254  | 43 | 107.2 | 114.8544 | 44.3 | 152.6 | 112.5303 |
| 28.116667 | 35.31895 | 136.0774 | 117.6205 | 120.3326 | -0.729687  | 113.5936 | 114.0036 | 114.9335 | 57.7 | 29.5 | 115.1548 | 11.4 | 67.6 | 111.5535 | 9.5 | 39.5 | 77.249   | 43 | 107.2 | 114.5936 | 44.3 | 152.6 | 112.5465 |
| 28.12     | 35.31895 | 136.0774 | 117.6002 | 117.0913 | -0.7297534 | 113.9818 | 114.547  | 114.9001 | 57.7 | 29.5 | 115.17   | 11.4 | 67.6 | 124.4565 | 9.5 | 39.5 | 85.0438  | 43 | 107.2 | 114.4855 | 44.3 | 152.6 | 112.5381 |
| 28.123333 | 35.31895 | 136.0774 | 117.5928 | 115.5069 | -0.7298285 | 114.0684 | 114.7004 | 114.7613 | 57.7 | 29.5 | 115.0614 | 11.4 | 67.6 | 134.0762 | 9.5 | 39.5 | 84.2787  | 43 | 107.2 | 114.3002 | 44.3 | 152.6 | 112.4542 |
| 28.126667 | 35.31895 | 136.0774 | 117.5739 | 115.9981 | -0.7299141 | 113.8953 | 114.4144 | 114.5993 | 57.7 | 29.5 | 115.0146 | 11.4 | 67.6 | 128.0206 | 9.5 | 39.5 | 86.8935  | 43 | 107.2 | 113.9614 | 44.3 | 152.6 | 112.5695 |
| 28.13     | 35.31895 | 136.0774 | 117.561  | 116.3697 | -0.7299989 | 113.779  | 114.3151 | 114.5714 | 57.7 | 29.5 | 114.906  | 11.4 | 67.6 | 127.631  | 9.5 | 39.5 | 84.1182  | 43 | 107.2 | 114.0574 | 44.3 | 152.6 | 112.4098 |
| 28.133333 | 35.31895 | 136.0774 | 117.5573 | 117.5104 | -0.7300873 | 113.6231 | 114.1703 | 114.628  | 57.7 | 29.5 | 114.838  | 11.4 | 67.6 | 124.4944 | 9.5 | 39.5 | 79.545   | 43 | 107.2 | 114.3054 | 44.3 | 152.6 | 112.2255 |
| 28.136667 | 35.31895 | 136.0774 | 117.5454 | 116.473  | -0.7301649 | 113.7123 | 114.3277 | 114.6031 | 57.7 | 29.5 | 114.8518 | 11.4 | 67.6 | 128.8859 | 9.5 | 39.5 | 81.523   | 43 | 107.2 | 114.2212 | 44.3 | 152.6 | 112.1402 |
| 28.14     | 35.31895 | 136.0774 | 117.5423 | 112.2612 | -0.7302267 | 114.1538 | 114.9757 | 114.5262 | 57.7 | 29.5 | 114.6797 | 11.4 | 67.6 | 144.0809 | 9.5 | 39.5 | 92.696   | 43 | 107.2 | 114.2905 | 44.3 | 152.6 | 112.0546 |
| 28.143333 | 35.31895 | 136.0774 | 117.5388 | 111.2206 | -0.7303035 | 114.403  | 115.2779 | 114.6315 | 57.7 | 29.5 | 114.8592 | 11.4 | 67.6 | 147.3173 | 9.5 | 39.5 | 97.3179  | 43 | 107.2 | 114.2818 | 44.3 | 152.6 | 112.1683 |
| 28.146667 | 35.31895 | 136.0774 | 117.5365 | 108.4037 | -0.7303723 | 114.6754 | 115.6809 | 114.5605 | 57.7 | 29.5 | 114.8308 | 11.4 | 67.6 | 155.7768 | 9.5 | 39.5 | 106.6931 | 43 | 107.2 | 114.1453 | 44.3 | 152.6 | 112.1071 |
| 28.15     | 35.31895 | 136.0774 | 117.542  | 108.6414 | -0.7304556 | 114.7506 | 115.7511 | 114.6602 | 57.7 | 29.5 | 115.0506 | 11.4 | 67.6 | 154.1411 | 9.5 | 39.5 | 107.9305 | 43 | 107.2 | 114.0605 | 44.3 | 152.6 | 112.1951 |
| 28.153333 | 35.31895 | 136.0774 | 117.5445 | 108.2907 | -0.7305362 | 114.8523 | 115.9169 | 114.7874 | 57.7 | 29.5 | 115.0838 | 11.4 | 67.6 | 151.7051 | 9.5 | 39.5 | 113.5004 | 43 | 107.2 | 114.3321 | 44.3 | 152.6 | 112.1332 |
| 28.156667 | 35.31895 | 136.0774 | 117.5457 | 107.6468 | -0.7306151 | 115.039  | 116.1327 | 114.8789 | 57.7 | 29.5 | 115.2409 | 11.4 | 67.6 | 153.3403 | 9.5 | 39.5 | 117.0637 | 43 | 107.2 | 114.3228 | 44.3 | 152.6 | 112.2455 |
| 28.16     | 35.31895 | 136.0774 | 117.5508 | 108.3303 | -0.7307006 | 115.0832 | 116.1893 | 115.0725 | 57.7 | 29.5 | 115.5006 | 11.4 | 67.6 | 145.8556 | 9.5 | 39.5 | 121.9997 | 43 | 107.2 | 114.415  | 44.3 | 152.6 | 112.2581 |
| 28.163333 | 35.31895 | 136.0774 | 117.5439 | 109.1497 | -0.7307874 | 114.9446 | 116.0113 | 115.0781 | 57.7 | 29.5 | 115.6164 | 11.4 | 67.6 | 137.3096 | 9.5 | 39.5 | 125.8775 | 43 | 107.2 | 114.2511 | 44.3 | 152.6 | 112.2202 |
| 28.166667 | 35.31895 | 136.0774 | 117.5372 | 109.2872 | -0.7308707 | 114.9365 | 116.0152 | 115.1654 | 57.7 | 29.5 | 115.8342 | 11.4 | 67.6 | 127.5197 | 9.5 | 39.5 | 136.3131 | 43 | 107.2 | 114.1381 | 44.3 | 152.6 | 112.1813 |
| 28.17     | 35.31895 | 136.0774 | 117.5329 | 102.752  | -0.7309211 | 115.6126 | 117.01   | 115.1174 | 57.7 | 29.5 | 115.8453 | 11.4 | 67.6 | 138.3622 | 9.5 | 39.5 | 168.3432 | 43 | 107.2 | 113.9992 | 44.3 | 152.6 | 112.0433 |
| 28.173333 | 35.31895 | 136.0774 | 117.5304 | 103.6675 | -0.7310083 | 115.4955 | 116.8721 | 115.1433 | 57.7 | 29.5 | 115.7952 | 11.4 | 67.6 | 135.1232 | 9.5 | 39.5 | 165.555  | 43 | 107.2 | 114.142  | 44.3 | 152.6 | 111.9794 |
| 28.176667 | 35.31895 | 136.0774 | 117.5231 | 104.4436 | -0.7310949 | 115.3618 | 116.721  | 115.1227 | 57.7 | 29.5 | 115.7022 | 11.4 | 67.6 | 134.2754 | 9.5 | 39.5 | 160.7537 | 43 | 107.2 | 114.2325 | 44.3 | 152.6 | 111.8901 |
| 28.18     | 35.31895 | 136.0774 | 117.5234 | 104.7752 | -0.7311796 | 115.2212 | 116.5702 | 115.0169 | 57.7 | 29.5 | 115.5687 | 11.4 | 67.6 | 136.9678 | 9.5 | 39.5 | 154.5756 | 43 | 107.2 | 114.1694 | 44.3 | 152.6 | 111.7755 |
| 28.183333 | 35.31895 | 136.0774 | 117.5308 | 107.2104 | -0.7312743 | 114.9428 | 116.2181 | 115.0289 | 57.7 | 29.6 | 115.4965 | 11.4 | 67.6 | 137.4418 | 9.5 | 39.5 | 137.2753 | 43 | 107.2 | 114.3105 | 44.3 | 152.6 | 111.6855 |
| 28.186667 | 35.31895 | 136.0774 | 117.5292 | 106.5982 | -0.7313543 | 114.9151 | 116.2053 | 114.8946 | 57.7 | 29.6 | 115.2997 | 11.4 | 67.6 | 143.8503 | 9.5 | 39.5 | 133.314  | 43 | 107.2 | 114.2724 | 44.3 | 152.6 | 111.6195 |
| 28.19     | 35.31895 | 136.0774 | 117.5273 | 111.0817 | -0.7314598 | 114.2675 | 115.3786 | 114.7679 | 57.7 | 29.6 | 115.0826 | 11.4 | 67.6 | 142.4649 | 9.5 | 39.5 | 102.973  | 43 | 107.2 | 114.2846 | 44.3 | 152.6 | 111.4295 |
| 28.193333 | 35.31895 | 136.0774 | 117.521  | 114.6155 | -0.7315615 | 113.5278 | 114.4143 | 114.4776 | 57.7 | 29.6 | 114.7616 | 11.4 | 67.6 | 127.5335 | 9.5 | 39.5 | 92.8575  | 43 | 107.3 | 114.0413 | 44.3 | 152.6 | 111.2634 |
| 28.196667 | 35.31895 | 136.0774 | 117.5207 | 115.3959 | -0.7316475 | 113.5497 | 114.4707 | 114.6119 | 57.7 | 29.6 | 114.6261 | 11.4 | 67.6 | 132.7004 | 9.5 | 39.5 | 82.2129  | 43 | 107.3 | 114.59   | 44.3 | 152.6 | 111.1972 |
| 28.2      | 35.31895 | 136.0774 | 117.5078 | 117.9068 | -0.7317379 | 114.2354 | 114.2354 | 114.6396 | 57.7 | 29.6 | 114.6146 | 11.4 | 67.6 | 126.617  | 9.5 | 39.5 | 78.9746  | 43 | 107.3 | 114.678  | #N/A | #N/A  | #N/A     |
| 28.203333 | 35.31895 | 136.0774 | 117.5108 | 119.8647 | -0.7318328 | 113.4108 | 113.4108 | 114.2009 | 57.7 | 29.6 | 114.4993 | 11.4 | 67.6 | 121.9555 | 9.5 | 39.5 | 66.9412  | 43 | 107.3 | 113.7426 | #N/A | #N/A  | #N/A     |
| 28.206667 | 35.31895 | 136.0774 | 117.5106 | 120.8873 | -0.7319199 | 113.3992 | 113.3992 | 114.3682 | 57.7 | 29.6 | 114.2186 | 11.4 | 67.6 | 118.3508 | 9.5 | 39.5 | 64.335   | 43 | 107.3 | 114.5981 | #N/A | #N/A  | #N/A     |
| 28.21     | 35.31895 | 136.0774 | 117.5129 | 120.5565 | -0.7320032 | 112.9053 | 112.9053 | 113.8433 | 57.7 | 29.6 | 114.1441 | 11.4 | 67.6 | 123.155  | 9.5 | 39.5 | 57.5903  | 43 | 107.3 | 113.3812 | #N/A | #N/A  | #N/A     |
| 28.213333 | 35.31895 | 136.0774 | 117.512  | 121.0311 | -0.7320901 | 112.3809 | 112.3809 | 113.5125 | 57.7 | 29.6 | 114.0078 | 11.4 | 67.6 | 112.9135 | 9.5 | 39.5 | 62.6153  | 43 | 107.3 | 112.7518 | #N/A | #N/A  | #N/A     |
| 28.216667 | 35.31895 | 136.0774 | 117.5202 | 122.5604 | -0.7321702 | 114.4837 | 114.4837 | 115.6329 | 57.7 | 29.6 | 114.2214 | 11.4 | 67.6 | 111.3422 | 9.5 | 39.5 | 69.2257  | 43 | 107.3 | 117.8011 | #N/A | #N/A  | #N/A     |
| 28.22     | 35.31895 | 136.0774 | 117.5257 | 123.7975 | -0.7322571 | 114.8734 | 113.3412 | 114.6179 | 57.7 | 29.6 | 114.1053 | 11.4 | 67.6 | 102.4229 | 9.5 | 39.5 | 73.7158  | 43 | 107.3 | 115.4052 | 44.3 | 152.6 | 118.7869 |
| 28.223333 | 35.31895 | 136.0774 | 117.5118 | 121.6171 | -0.7323275 | 115.429  | 114.4052 | 115.2221 | 57.7 | 29.6 | 113.8646 | 11.4 | 67.6 | 122.0042 | 9.5 | 39.5 | 68.1331  | 43 | 107.3 | 117.3073 | 44.3 | 152.6 | 118.0441 |
| 28.226667 | 35.31895 | 136.0774 | 117.5058 | 120.204  | -0.7324094 | 114.1523 | 113.2719 | 114.0251 | 57.7 | 29.6 | 113.7473 | 11.4 | 67.6 | 122.1991 | 9.5 | 39.5 | 67.8533  | 43 | 107.3 | 114.4518 | 44.3 | 152.6 | 116.4011 |
| 28.23     | 35.31895 | 136.0774 | 117.502  | 117.3291 | -0.7324798 | 114.002  | 113.4126 | 113.6868 | 57.7 | 29.6 | 113.6498 | 11.4 | 67.6 | 137.6178 | 9.5 | 39.5 | 66.8244  | 43 | 107.3 | 113.7436 | 44.3 | 152.6 | 115.5074 |
| 28.233333 | 35.31895 | 136.0774 | 117.4877 | 116.3424 | -0.7325624 | 113.0149 | 113.4152 | 113.7548 | 57.7 | 29.6 | 113.5739 | 11.4 | 67.6 | 131.7039 | 9.5 | 39.5 | 72.478   | 43 | 107.3 | 114.0328 | 44.3 | 152.6 | 111.9926 |
| 28.236667 | 35.31895 | 136.0774 | 117.4764 | 117.2027 | -0.7326494 | 112.8777 | 112.7043 | 113.1922 | 57.7 | 29.6 | 113.4558 | 11.4 | 67.6 | 125.2592 | 9.5 | 39.5 | 73.5715  | 43 | 107.3 | 112.7873 | 44.3 | 152.6 | 113.3207 |
| 28.24     | 35.31895 | 136.0774 | 117.4745 | 115.7755 | -0.7327249 | 113.0235 | 112.8567 | 113.1073 | 57.7 | 29.6 | 113.461  | 11.4 | 67.6 | 128.3703 | 9.5 | 39.5 | 79.7566  | 43 | 107.3 | 112.564  | 44.3 | 152.6 | 113.4496 |
| 28.243333 | 35.31895 | 136.0774 | 117.4717 | 117.8554 | -0.7328121 | 114.0641 | 113.7852 | 114.2637 | 57.7 | 29.6 | 113.4665 | 11.4 | 67.6 | 122.4536 | 9.5 | 39.5 | 80.6325  | 43 | 107.3 | 115.4883 | 44.3 | 152.6 | 114.7763 |
| 28.246667 | 35.31895 | 136.0774 | 117.4747 | 116.6841 | -0.732884  | 115.294  | 115.0262 | 115.1687 | 57.7 | 29.6 | 113.657  | 11.4 | 67.6 | 128.838  | 9.5 | 39.5 | 89.0463  | 43 | 107.3 | 117.4909 | 44.3 | 152.6 | 115.9781 |
| 28.25     | 35.31895 | 136.0774 | 117.4737 | 112.447  | -0.7329575 | 113.071  | 113.536  | 113.2986 | 57.7 | 29.6 | 113.4969 | 11.4 | 67.6 | 135.837  | 9.5 | 39.5 | 91.834   | 43 | 107.3 | 112.994  | 44.4 | 152.6 | 111.8874 |
| 28.253333 | 35.31895 | 136.0774 | 117.4866 | 113.0095 | -0.7330427 | 113.0517 | 114.2142 | 114.1151 | 57.7 | 29.6 | 113.6252 | 11.4 | 67.6 | 133.4588 | 9.5 | 39.5 | 90.9067  | 43 | 107.3 | 114.8676 | 44.4 | 152.6 | 110.0931 |
| 28.256667 | 35.31895 | 136.0774 | 117.49   | 111.5162 | -0.7331203 | 112.6494 | 114.1041 |          |      |      |          |      |      |          |     |      |          |    |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 28.263333 | 35.31895 | 136.0774 | 117.4896 | 113.4965 | -0.7332976 | 111.9155 | 112.5797 | 112.7977 | 57.7 | 29.6 | 113.472  | 11.4 | 67.6 | 110.4731 | 9.5 | 39.5 | 106.1634 | 43   | 107.3 | 111.7619 | 44.4 | 152.6 | 110.2249 |
| 28.266667 | 35.31895 | 136.0774 | 117.5001 | 112.1008 | -0.7333734 | 112.018  | 113.4188 | 113.438  | 57.7 | 29.6 | 113.7436 | 11.4 | 67.6 | 114.5479 | 9.5 | 39.5 | 110.9686 | 43   | 107.3 | 112.9685 | 44.4 | 152.6 | 108.4529 |
| 28.27     | 35.31895 | 136.0774 | 117.5104 | 113.7981 | -0.7334652 | 111.6464 | 112.9203 | 113.2926 | 57.7 | 29.6 | 113.767  | 11.4 | 67.6 | 102.4327 | 9.5 | 39.5 | 111.838  | 43   | 107.3 | 112.5639 | 44.4 | 152.6 | 108.4043 |
| 28.273333 | 35.31895 | 136.0774 | 117.5168 | 114.4801 | -0.733551  | 111.612  | 112.5386 | 113.0491 | 57.7 | 29.6 | 113.6458 | 11.4 | 67.6 | 94.5604  | 9.5 | 39.5 | 116.2161 | 43   | 107.3 | 112.1326 | 44.4 | 152.6 | 109.2537 |
| 28.276667 | 35.31895 | 136.0774 | 117.5206 | 115.2219 | -0.7336388 | 111.1686 | 112.3327 | 113.0909 | 57.7 | 29.6 | 113.5456 | 11.4 | 67.6 | 83.2373  | 9.5 | 39.5 | 121.2302 | 43   | 107.3 | 112.3924 | 44.4 | 152.6 | 108.206  |
| 28.28     | 35.31895 | 136.0774 | 117.5254 | 112.2869 | -0.7337089 | 111.0301 | 112.522  | 112.814  | 57.7 | 29.6 | 113.4031 | 11.4 | 67.6 | 96.0679  | 9.5 | 39.5 | 123.4793 | 43   | 107.3 | 111.909  | 44.4 | 152.6 | 107.233  |
| 28.283333 | 35.31895 | 136.0774 | 117.5142 | 113.1662 | -0.7337965 | 110.7582 | 111.987  | 112.4854 | 57.7 | 29.6 | 113.5082 | 11.4 | 67.6 | 86.2486  | 9.4 | 39.5 | 127.6431 | 43   | 107.3 | 110.9142 | 44.4 | 152.6 | 107.6322 |
| 28.286667 | 35.31895 | 136.0774 | 117.5191 | 114.5962 | -0.7338829 | 111.3284 | 112.6344 | 113.3505 | 57.7 | 29.6 | 113.4687 | 11.4 | 67.6 | 77.4882  | 9.4 | 39.5 | 132.4431 | 43   | 107.3 | 113.1689 | 44.4 | 152.6 | 108.006  |
| 28.29     | 35.31895 | 136.0774 | 117.5133 | 113.0433 | -0.7339591 | 111.1846 | 112.493  | 112.9718 | 57.7 | 29.6 | 113.3254 | 11.4 | 67.6 | 82.8803  | 9.4 | 39.5 | 134.6932 | 43   | 107.3 | 112.4286 | 44.4 | 152.6 | 107.856  |
| 28.293333 | 35.31895 | 136.0774 | 117.5149 | 112.7285 | -0.7340398 | 111.3012 | 112.5287 | 112.9325 | 57.7 | 29.6 | 113.409  | 11.4 | 67.6 | 84.4691  | 9.4 | 39.5 | 135.7696 | 43   | 107.3 | 112.2005 | 44.4 | 152.6 | 108.1784 |
| 28.296667 | 35.31895 | 136.0774 | 117.5227 | 111.034  | -0.7341156 | 111.0933 | 112.3279 | 112.481  | 57.7 | 29.6 | 113.0798 | 11.4 | 67.6 | 90.7455  | 9.4 | 39.5 | 137.1646 | 43   | 107.3 | 111.5613 | 44.4 | 152.6 | 107.9526 |
| 28.3      | 35.31895 | 136.0774 | 117.5194 | 110.699  | -0.7341947 | 111.5329 | 112.8034 | 112.8502 | 57.7 | 29.6 | 113.0386 | 11.4 | 67.6 | 93.6572  | 9.4 | 39.5 | 138.772  | 43   | 107.3 | 112.5609 | 44.4 | 152.6 | 108.3008 |
| 28.303333 | 35.31895 | 136.0774 | 117.5182 | 110.3147 | -0.7342765 | 111.3098 | 112.6899 | 112.7079 | 57.7 | 29.6 | 112.9361 | 11.4 | 67.6 | 94.6211  | 9.4 | 39.5 | 138.3576 | 43   | 107.3 | 112.3574 | 44.4 | 152.6 | 107.7989 |
| 28.306667 | 35.31895 | 136.0774 | 117.5132 | 110.8909 | -0.7343608 | 111.4978 | 112.5602 | 112.6318 | 57.7 | 29.6 | 113.0601 | 11.4 | 67.6 | 92.4894  | 9.4 | 39.5 | 138.7922 | 43   | 107.3 | 111.9738 | 44.4 | 152.6 | 108.7951 |
| 28.31     | 35.31895 | 136.0774 | 117.5187 | 111.0615 | -0.7344439 | 111.541  | 112.6216 | 112.7113 | 57.7 | 29.6 | 113.2245 | 11.4 | 67.6 | 92.0394  | 9.4 | 39.5 | 138.8017 | 43   | 107.3 | 111.9229 | 44.4 | 152.6 | 108.7918 |
| 28.313333 | 35.31895 | 136.0774 | 117.5177 | 112.2574 | -0.7345316 | 111.5667 | 112.6098 | 112.9078 | 57.7 | 29.6 | 113.1828 | 11.4 | 67.6 | 86.013   | 9.4 | 39.5 | 138.3829 | 43   | 107.3 | 112.4855 | 44.4 | 152.6 | 108.9133 |
| 28.316667 | 35.31895 | 136.0774 | 117.5141 | 112.6543 | -0.7346106 | 112.7629 | 112.7629 | 112.8864 | 57.7 | 29.6 | 113.2645 | 11.4 | 67.6 | 92.1925  | 9.4 | 39.5 | 137.4289 | 43   | 107.3 | 112.3055 | #N/A | #N/A  | #N/A     |
| 28.32     | 35.31895 | 136.0774 | 117.5072 | 111.3693 | -0.7346856 | 113.1916 | 113.1916 | 113.0181 | 57.6 | 29.6 | 113.3666 | 11.4 | 67.6 | 102.5238 | 9.4 | 39.5 | 136.4763 | 43   | 107.3 | 112.4839 | #N/A | #N/A  | #N/A     |
| 28.323333 | 35.31895 | 136.0774 | 117.4994 | 112.1052 | -0.7347718 | 113.0809 | 113.0809 | 113.0332 | 57.6 | 29.6 | 113.5927 | 11.4 | 67.6 | 99.4157  | 9.4 | 39.5 | 135.2018 | 43   | 107.3 | 112.1756 | #N/A | #N/A  | #N/A     |
| 28.326667 | 35.31895 | 136.0774 | 117.4971 | 113.5913 | -0.7348548 | 114.4651 | 113.287  | 113.2133 | 57.6 | 29.6 | 113.5907 | 11.4 | 67.6 | 102.5805 | 9.4 | 39.5 | 132.2234 | 43   | 107.3 | 112.6349 | 44.4 | 152.6 | 117.4581 |
| 28.33     | 35.31895 | 136.0774 | 117.4853 | 114.261  | -0.734937  | 115.1942 | 113.411  | 113.2975 | 57.6 | 29.6 | 113.5475 | 11.4 | 67.6 | 106.1013 | 9.4 | 39.5 | 129.133  | 43   | 107.3 | 112.9142 | 44.4 | 152.6 | 119.7248 |
| 28.333333 | 35.31895 | 136.0774 | 117.4811 | 111.6661 | -0.7350157 | 113.4871 | 113.4871 | 113.2602 | 57.6 | 29.6 | 113.5041 | 11.4 | 67.5 | 110.5937 | 9.4 | 39.5 | 127.7429 | 43   | 107.3 | 112.8865 | #N/A | #N/A  | #N/A     |
| 28.336667 | 35.31895 | 136.0774 | 117.4757 | 111.3766 | -0.7350966 | 113.5745 | 113.5745 | 113.2755 | 57.6 | 29.6 | 113.4811 | 11.4 | 67.5 | 113.9343 | 9.4 | 39.5 | 126.2504 | 43   | 107.3 | 112.9605 | #N/A | #N/A  | #N/A     |
| 28.34     | 35.31895 | 136.0774 | 117.4672 | 111.25   | -0.7351792 | 113.4292 | 113.4292 | 113.1249 | 57.6 | 29.6 | 113.2507 | 11.4 | 67.5 | 115.239  | 9.4 | 39.5 | 124.2188 | 43   | 107.3 | 112.9321 | #N/A | #N/A  | #N/A     |
| 28.343333 | 35.31895 | 136.0774 | 117.4574 | 110.5585 | -0.7352583 | 113.5009 | 113.5009 | 113.0594 | 57.6 | 29.6 | 113.1449 | 11.4 | 67.5 | 120.5202 | 9.4 | 39.5 | 122.7195 | 43   | 107.3 | 112.9283 | #N/A | #N/A  | #N/A     |
| 28.346667 | 35.31895 | 136.0774 | 117.4465 | 111.861  | -0.7353473 | 113.3297 | 113.3297 | 113.1259 | 57.6 | 29.6 | 113.2235 | 11.4 | 67.5 | 114.3079 | 9.4 | 39.5 | 120.8979 | 43   | 107.3 | 112.9763 | #N/A | #N/A  | #N/A     |
| 28.35     | 35.31895 | 136.0774 | 117.4266 | 112.8135 | -0.7354343 | 113.251  | 113.251  | 113.2181 | 57.6 | 29.6 | 113.2615 | 11.4 | 67.5 | 109.6832 | 9.4 | 39.5 | 119.9292 | 43   | 107.3 | 113.1516 | #N/A | #N/A  | #N/A     |
| 28.353333 | 35.31895 | 136.0774 | 117.4184 | 112.846  | -0.7355166 | 113.3413 | 113.3413 | 113.2889 | 57.6 | 29.6 | 113.3816 | 11.4 | 67.5 | 111.1605 | 9.4 | 39.5 | 118.8519 | 43   | 107.3 | 113.1468 | #N/A | #N/A  | #N/A     |
| 28.356667 | 35.31895 | 136.0774 | 117.4027 | 106.6796 | -0.7356005 | 106.8478 | 113.2048 | 113.3548 | 57.6 | 29.6 | 113.4599 | 11.4 | 67.5 | 105.5635 | 9.4 | 39.5 | 117.7699 | 43   | 107.3 | 113.1938 | 44.4 | 152.6 | 90.6965  |
| 28.36     | 35.31895 | 136.0774 | 117.3905 | 110.1237 | -0.7356841 | 110.0413 | 113.3754 | 113.4882 | 57.6 | 29.6 | 113.6001 | 11.4 | 67.5 | 107.5678 | 9.4 | 39.5 | 116.9    | 43   | 107.3 | 113.3167 | 44.4 | 152.6 | 101.5702 |
| 28.363333 | 35.31895 | 136.0774 | 117.3807 | 114.2767 | -0.7357705 | 113.3261 | 113.3261 | 113.5059 | 57.6 | 29.6 | 113.6164 | 11.4 | 67.5 | 105.3303 | 9.4 | 39.5 | 117.0975 | 43   | 107.3 | 113.3365 | #N/A | #N/A  | #N/A     |
| 28.366667 | 35.31895 | 136.0774 | 117.3552 | 112.7193 | -0.7358445 | 113.6921 | 113.6921 | 113.5509 | 57.6 | 29.6 | 113.611  | 11.4 | 67.5 | 115.2002 | 9.4 | 39.5 | 117.7183 | 43   | 107.3 | 113.4588 | #N/A | #N/A  | #N/A     |
| 28.37     | 35.31895 | 136.0774 | 117.343  | 109.111  | -0.7359165 | 112.4187 | 114.0757 | 113.584  | 57.6 | 29.6 | 113.5024 | 11.4 | 67.5 | 125.3368 | 9.4 | 39.5 | 119.2973 | 43   | 107.3 | 113.709  | 44.4 | 152.7 | 108.2087 |
| 28.373333 | 35.31895 | 136.0774 | 117.3291 | 109.7881 | -0.7359941 | 114.2075 | 114.274  | 113.5968 | 57.6 | 29.6 | 113.394  | 11.4 | 67.5 | 126.9811 | 9.4 | 39.5 | 125.5689 | 43   | 107.3 | 113.9076 | 44.4 | 152.7 | 114.0385 |
| 28.376667 | 35.31895 | 136.0774 | 117.3157 | 107.9396 | -0.7360659 | 114.7526 | 114.8311 | 113.7653 | 57.6 | 29.7 | 113.6767 | 11.4 | 67.5 | 136.228  | 9.4 | 39.5 | 130.5571 | 43   | 107.3 | 113.9012 | 44.4 | 152.7 | 114.5534 |
| 28.38     | 35.31895 | 136.0774 | 117.3035 | 105.7452 | -0.736142  | 113.9723 | 115.1324 | 113.9047 | 57.6 | 29.7 | 113.7951 | 11.4 | 67.5 | 135.6609 | 9.4 | 39.5 | 139.2834 | 43   | 107.3 | 114.0727 | 44.4 | 152.7 | 111.0247 |
| 28.383333 | 35.31895 | 136.0774 | 117.2944 | 103.143  | -0.7362163 | 113.2085 | 115.4667 | 113.9826 | 57.6 | 29.7 | 113.995  | 11.4 | 67.5 | 139.601  | 9.4 | 39.5 | 145.6627 | 43   | 107.3 | 113.9635 | 44.4 | 152.7 | 107.4708 |
| 28.386667 | 35.31895 | 136.0774 | 117.2855 | 102.3747 | -0.7363    | 112.1792 | 115.4707 | 114.0865 | 57.6 | 29.7 | 114.0715 | 11.4 | 67.5 | 133.5531 | 9.4 | 39.5 | 150.116  | 43   | 107.3 | 114.1094 | 44.4 | 152.7 | 103.8164 |
| 28.39     | 35.31895 | 136.0774 | 117.2756 | 102.956  | -0.736385  | 112.1925 | 115.4934 | 114.2109 | 57.6 | 29.7 | 114.3329 | 11.4 | 67.5 | 129.4469 | 9.4 | 39.5 | 151.6946 | 43   | 107.3 | 114.0238 | 44.4 | 152.7 | 103.8058 |
| 28.393333 | 35.31895 | 136.0774 | 117.2647 | 104.9593 | -0.7364742 | 112.6925 | 115.3207 | 114.1649 | 57.6 | 29.7 | 114.3461 | 11.4 | 67.5 | 137.4507 | 9.4 | 39.5 | 133.9508 | 43   | 107.3 | 113.8872 | 44.4 | 152.7 | 106.0151 |
| 28.396667 | 35.31895 | 136.0774 | 117.2438 | 110.2197 | -0.7365795 | 112.8442 | 114.5642 | 114.1789 | 57.6 | 29.7 | 114.4418 | 11.4 | 67.5 | 122.2926 | 9.4 | 39.5 | 120.2597 | 43   | 107.3 | 113.7759 | 44.4 | 152.7 | 108.4744 |
| 28.4      | 35.31895 | 136.0774 | 117.2345 | 113.3346 | -0.7366848 | 110.864  | 113.6855 | 114.1481 | 57.6 | 29.7 | 114.4135 | 11.4 | 67.5 | 101.8336 | 9.4 | 39.5 | 110.6168 | 43   | 107.3 | 113.7413 | 44.4 | 152.7 | 103.6954 |
| 28.403333 | 35.31895 | 136.0774 | 117.22   | 115.145  | -0.7367761 | 110.679  | 113.3083 | 114.0773 | 57.6 | 29.7 | 114.3021 | 11.4 | 67.5 | 95.9537  | 9.4 | 39.5 | 104.8156 | 42.9 | 107.4 | 113.7314 | 44.4 | 152.7 | 104.008  |
| 28.406667 | 35.31894 | 136.0774 | 117.2124 | 120.4787 | -0.7368816 | 110.8838 | 112.4285 | 113.9404 | 57.6 | 29.7 | 114.2318 | 11.4 | 67.5 | 84.5979  | 9.4 | 39.5 | 86.5187  | 42.9 | 107.4 | 113.4921 | 44.4 | 152.7 | 106.9646 |
| 28.41     | 35.31894 | 136.0774 | 117.1999 | 121.7196 | -0.7369702 | 110.754  | 112.3801 | 114.062  | 57.6 | 29.7 | 114.3063 | 11.4 | 67.5 | 86.9387  | 9.4 | 39.5 | 75.4772  | 42.9 | 107.4 | 113.6862 | 44.4 | 152.7 | 106.6281 |
| 28.413333 | 35.31894 | 136.0774 | 117.1884 | 122.6155 | -0.7370582 | 110.414  | 111.9116 | 113.7935 | 57.6 | 29.7 | 113.9868 | 11.4 | 67.5 |          |     |      |          |      |       |          |      |       |          |

|           |          |          |            |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|------------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 28.42     | 35.31894 | 136.0774 | 117.1578   | 124.5274 | -0.7372333 | 110.0429 | 111.4151 | 113.6481 | 57.6 | 29.7 | 113.7614 | 11.4 | 67.5 | 75.3068  | 9.4 | 39.5 | 65.832   | 42.9 | 107.4 | 113.4738 | 44.4 | 152.7 | 106.5616 |
| 28.423333 | 35.31894 | 136.0774 | 117.1492   | 122.99   | -0.7373053 | 110.848  | 111.7068 | 113.5779 | 57.6 | 29.7 | 113.6696 | 11.4 | 67.5 | 80.8231  | 9.4 | 39.5 | 74.4324  | 42.9 | 107.4 | 113.4368 | 44.4 | 152.7 | 108.6691 |
| 28.426667 | 35.31894 | 136.0774 | 117.1304   | 124.3354 | -0.737394  | 110.8128 | 111.4866 | 113.5712 | 57.6 | 29.7 | 113.783  | 11.4 | 67.5 | 75.734   | 9.4 | 39.5 | 71.9275  | 42.9 | 107.4 | 113.2454 | 44.4 | 152.7 | 109.1031 |
| 28.43     | 35.31894 | 136.0774 | 117.1059   | 119.6068 | -0.7374555 | 110.7642 | 112.1036 | 113.4671 | 57.6 | 29.7 | 113.8351 | 11.4 | 67.5 | 89.9092  | 9.4 | 39.5 | 84.4847  | 42.9 | 107.4 | 112.9009 | 44.4 | 152.7 | 107.3659 |
| 28.433333 | 35.31894 | 136.0774 | 117.0899   | 118.9178 | -0.7375337 | 111.0411 | 112.3775 | 113.6681 | 57.6 | 29.7 | 114.1753 | 11.4 | 67.5 | 81.7238  | 9.4 | 39.5 | 100.3607 | 42.9 | 107.4 | 112.8878 | 44.4 | 152.7 | 107.6504 |
| 28.436667 | 35.31894 | 136.0774 | 117.074    | 116.4542 | -0.7376021 | 111.7326 | 112.974  | 113.7742 | 57.6 | 29.7 | 114.392  | 11.4 | 67.5 | 90.5943  | 9.4 | 39.5 | 110.4652 | 42.9 | 107.4 | 112.8237 | 44.4 | 152.7 | 108.5832 |
| 28.44     | 35.31894 | 136.0774 | 117.059    | 115.7059 | -0.7376815 | 111.6563 | 113.0806 | 113.8523 | 57.6 | 29.7 | 114.4635 | 11.4 | 67.5 | 82.7614  | 9.4 | 39.5 | 123.4566 | 42.9 | 107.4 | 112.912  | 44.4 | 152.7 | 108.0427 |
| 28.443333 | 35.31894 | 136.0774 | 117.0396   | 114.9372 | -0.7377597 | 111.8421 | 113.218  | 113.8677 | 57.6 | 29.7 | 114.5139 | 11.4 | 67.5 | 81.7327  | 9.4 | 39.5 | 130.6805 | 42.9 | 107.4 | 112.8736 | 44.4 | 152.7 | 108.3512 |
| 28.446667 | 35.31894 | 136.0774 | 117.0228   | 115.4765 | -0.737845  | 111.7409 | 113.1522 | 113.9402 | 57.6 | 29.7 | 114.6262 | 11.4 | 67.5 | 74.4296  | 9.4 | 39.5 | 135.1161 | 42.9 | 107.4 | 112.8848 | 44.4 | 152.7 | 108.1604 |
| 28.45     | 35.31894 | 136.0774 | 117.0119   | 114.9933 | -0.7379239 | 112.074  | 113.4464 | 114.1439 | 57.6 | 29.7 | 114.7382 | 11.4 | 67.5 | 72.4243  | 9.4 | 39.5 | 142.7664 | 42.9 | 107.4 | 113.2297 | 44.4 | 152.7 | 108.592  |
| 28.453333 | 35.31894 | 136.0774 | 117.0003   | 115.4132 | -0.7380087 | 111.966  | 113.5091 | 114.3039 | 57.6 | 29.7 | 114.9122 | 11.4 | 67.5 | 69.2735  | 9.4 | 39.5 | 143.2477 | 42.9 | 107.4 | 113.368  | 44.4 | 152.7 | 108.0509 |
| 28.456667 | 35.31894 | 136.0774 | 116.9815   | 118.7964 | -0.7380995 | 113.3967 | 113.3967 | 114.3911 | 57.6 | 29.7 | 114.9828 | 11.4 | 67.5 | 71.9491  | 9.4 | 39.5 | 130.2485 | 42.9 | 107.4 | 113.4809 | #N/A | #N/A  | #N/A     |
| 28.46     | 35.31894 | 136.0774 | 116.9637   | 119.707  | -0.7381859 | 113.4133 | 113.4133 | 114.4623 | 57.6 | 29.7 | 115.0934 | 11.4 | 67.5 | 80.4555  | 9.4 | 39.5 | 115.4263 | 42.9 | 107.4 | 113.4915 | #N/A | #N/A  | #N/A     |
| 28.463333 | 35.31894 | 136.0774 | 116.938    | 120.7948 | -0.7382723 | 113.586  | 113.586  | 114.7039 | 57.6 | 29.7 | 115.5354 | 11.4 | 67.5 | 86.7505  | 9.4 | 39.5 | 103.5918 | 42.9 | 107.4 | 113.4247 | #N/A | #N/A  | #N/A     |
| 28.466667 | 35.31894 | 136.0774 | 116.9145   | 117.8951 | -0.7383518 | 111.3724 | 111.3724 | 112.384  | 57.6 | 29.7 | 111.8014 | 11.4 | 67.5 | 93.578   | 9.4 | 39.5 | 92.823   | 42.9 | 107.4 | 113.2804 | #N/A | #N/A  | #N/A     |
| 28.47     | 35.31894 | 136.0774 | 116.9016   | 119.8674 | -0.7384437 | 111.32   | 111.7792 | 113.0564 | 57.6 | 29.7 | 112.7385 | 11.4 | 67.5 | 97.1313  | 9.4 | 39.5 | 76.9157  | 42.9 | 107.4 | 113.5454 | 44.4 | 152.7 | 110.1548 |
| 28.473333 | 35.31894 | 136.0774 | 116.8963   | 123.0728 | -0.7385371 | 112.09   | 111.1686 | 112.7778 | 57.6 | 29.7 | 112.373  | 11.4 | 67.5 | 92.7356  | 9.4 | 39.5 | 67.2085  | 42.9 | 107.4 | 113.4005 | 44.4 | 152.7 | 114.4277 |
| 28.476667 | 35.31894 | 136.0774 | 116.8826   | 121.6002 | -0.7386117 | 112.3722 | 111.3535 | 112.6973 | 57.6 | 29.7 | 112.3181 | 11.4 | 67.5 | 96.5521  | 9.4 | 39.5 | 73.7757  | 42.9 | 107.4 | 113.2808 | 44.4 | 152.7 | 114.9566 |
| 28.48     | 35.31894 | 136.0774 | 116.883    | 121.407  | -0.7386902 | 113.0542 | 113.0499 | 114.225  | 57.6 | 29.7 | 114.8665 | 11.4 | 67.5 | 102.9285 | 9.4 | 39.5 | 76.0566  | 42.9 | 107.4 | 113.238  | 44.4 | 152.7 | 113.0651 |
| 28.483333 | 35.31894 | 136.0774 | 116.8678   | 119.8229 | -0.7387681 | 112.4912 | 112.3814 | 113.4123 | 57.6 | 29.7 | 113.4874 | 11.4 | 67.5 | 105.6842 | 9.4 | 39.5 | 76.7318  | 42.9 | 107.4 | 113.2968 | 44.4 | 152.7 | 112.7697 |
| 28.486667 | 35.31894 | 136.0774 | 116.8469   | 114.9785 | -0.7388411 | 109.7714 | 110.9087 | 111.6561 | 57.6 | 29.7 | 110.785  | 11.4 | 67.5 | 111.7919 | 9.4 | 39.5 | 76.6569  | 42.9 | 107.4 | 112.9962 | 44.4 | 152.7 | 106.886  |
| 28.49     | 35.31894 | 136.0774 | 116.8234   | 113.0861 | -0.738919  | 108.8922 | 111.0681 | 111.6879 | 57.6 | 29.7 | 110.7491 | 11.4 | 67.5 | 113.8363 | 9.4 | 39.5 | 79.6838  | 42.9 | 107.4 | 113.1322 | 44.4 | 152.7 | 103.3714 |
| 28.493333 | 35.31894 | 136.0774 | 116.8131   | 110.7224 | -0.7389921 | 108.6096 | 111.1545 | 111.4763 | 57.6 | 29.7 | 110.2788 | 11.4 | 67.5 | 118.6176 | 9.4 | 39.5 | 86.0346  | 42.9 | 107.4 | 113.3185 | 44.4 | 152.7 | 102.1528 |
| 28.496667 | 35.31894 | 136.0774 | 116.7945   | 112.3987 | -0.7390685 | 111.6453 | 112.7105 | 112.8379 | 57.6 | 29.7 | 110.5729 | 11.4 | 67.5 | 123.0457 | 9.4 | 39.5 | 91.9558  | 42.9 | 107.4 | 116.3226 | 44.4 | 152.7 | 108.9426 |
| 28.5      | 35.31894 | 136.0774 | 116.777    | 116.7986 | -0.7391545 | 115.2544 | 116.3643 | 116.6091 | 57.6 | 29.7 | 115.0424 | 11.4 | 67.5 | 121.9077 | 9.4 | 39.5 | 97.4502  | 42.9 | 107.4 | 119.0195 | 44.4 | 152.7 | 112.4383 |
| 28.503333 | 35.31894 | 136.0774 | 116.763    | 112.544  | -0.7392269 | 113.2376 | 113.2272 | 113.1129 | 57.6 | 29.7 | 111.7182 | 11.4 | 67.5 | 122.884  | 9.4 | 39.5 | 104.1208 | 42.9 | 107.4 | 115.2587 | 44.4 | 152.7 | 113.2641 |
| 28.506667 | 35.31894 | 136.0774 | 116.7558   | 111.4057 | -0.7393049 | 113.1037 | 111.8101 | 111.5468 | 57.6 | 29.7 | 110.1303 | 11.4 | 67.5 | 120.066  | 9.4 | 39.5 | 111.3291 | 42.9 | 107.4 | 113.7261 | 44.4 | 152.7 | 116.3858 |
| 28.51     | 35.31894 | 136.0774 | 116.7492   | 110.527  | -0.7393814 | 113.543  | 112.6383 | 112.2423 | 57.6 | 29.7 | 109.6586 | 11.4 | 67.5 | 121.4853 | 9.4 | 39.5 | 117.1432 | 42.9 | 107.4 | 116.2173 | 44.4 | 152.7 | 115.8383 |
| 28.513333 | 35.31894 | 136.0774 | 116.7366   | 107.3419 | -0.7394575 | 111.7693 | 110.6663 | 109.9586 | 57.6 | 29.7 | 109.786  | 11.4 | 67.5 | 123.8749 | 9.4 | 39.5 | 122.5273 | 42.9 | 107.4 | 110.2242 | 44.4 | 152.7 | 114.5676 |
| 28.516667 | 35.31894 | 136.0774 | 116.7354   | 105.8259 | -0.7395331 | 111.7811 | 111.115  | 110.2625 | 57.6 | 29.7 | 108.2185 | 11.4 | 67.5 | 126.2633 | 9.4 | 39.5 | 126.5193 | 42.9 | 107.4 | 113.4072 | 44.4 | 152.7 | 113.471  |
| 28.52     | 35.31894 | 136.0774 | 116.7238   | 114.2436 | -0.7396265 | 117.763  | 119.317  | 118.7463 | 57.6 | 29.7 | 120.2319 | 11.4 | 67.5 | 129.4448 | 9.4 | 39.5 | 129.6506 | 42.9 | 107.4 | 116.4607 | 44.4 | 152.7 | 113.8204 |
| 28.523333 | 35.31894 | 136.0774 | 116.7022   | 110.2692 | -0.7397046 | 114.7396 | 115.7702 | 115.0086 | 57.6 | 29.7 | 117.4437 | 11.4 | 67.5 | 128.4756 | 9.4 | 39.5 | 130.7466 | 42.9 | 107.4 | 111.2623 | 44.4 | 152.7 | 112.1248 |
| 28.526667 | 35.31894 | 136.0774 | 116.6871   | 108.7447 | -0.7397844 | 113.8097 | 114.8573 | 114.0926 | 57.6 | 29.7 | 114.5313 | 11.4 | 67.5 | 126.7968 | 9.4 | 39.5 | 131.0883 | 42.9 | 107.4 | 113.4178 | 44.4 | 152.7 | 111.1517 |
| 28.53     | 35.31894 | 136.0774 | 116.6773   | 110.5046 | -0.7398702 | 114.8071 | 116.0609 | 115.391  | 57.6 | 29.7 | 116.5382 | 11.4 | 67.5 | 126.177  | 9.4 | 39.5 | 130.7862 | 42.9 | 107.4 | 113.626  | 44.4 | 152.7 | 111.6259 |
| 28.533333 | 35.31894 | 136.0774 | 116.665    | 106.582  | -0.7399464 | 112.2821 | 112.6196 | 111.8484 | 57.6 | 29.7 | 109.8417 | 11.4 | 67.5 | 123.7901 | 9.4 | 39.5 | 130.2673 | 42.9 | 107.4 | 114.9356 | 44.4 | 152.7 | 111.4256 |
| 28.536667 | 35.31894 | 136.0774 | 116.6539   | 107.1748 | -0.7400294 | 112.7527 | 113.3743 | 112.5441 | 57.6 | 29.7 | 112.2206 | 11.4 | 67.5 | 127.4081 | 9.4 | 39.5 | 129.4271 | 42.9 | 107.4 | 113.0419 | 44.4 | 152.7 | 111.1757 |
| 28.54     | 35.31894 | 136.0774 | 116.6351   | 109.642  | -0.7401256 | 112.1323 | 112.038  | 111.7599 | 57.6 | 29.7 | 110.526  | 11.4 | 67.5 | 109.9211 | 9.4 | 39.5 | 127.4012 | 42.9 | 107.4 | 113.6582 | 44.4 | 152.7 | 112.3716 |
| 28.543333 | 35.31894 | 136.0774 | 116.6238   | 111.4862 | -0.7402131 | 112.8448 | 112.5697 | 112.4951 | 57.6 | 29.7 | 110.6717 | 11.4 | 67.5 | 105.8541 | 9.4 | 39.5 | 125.6963 | 42.9 | 107.4 | 115.3002 | 44.4 | 152.7 | 113.5428 |
| 28.546667 | 35.31894 | 136.0774 | 116.6246   | 111.1307 | -0.7402966 | 112.2628 | 112.2628 | 112.0966 | 57.6 | 29.7 | 113.1121 | 11.4 | 67.5 | 109.5546 | 9.4 | 39.5 | 123.5588 | 42.9 | 107.4 | 110.5342 | #N/A | #N/A  | #N/A     |
| 28.55     | 35.31894 | 136.0774 | 116.6114   | 115.761  | -0.7403861 | 115.2681 | 115.2681 | 115.3748 | 57.6 | 29.7 | 115.7383 | 11.4 | 67.5 | 107.7823 | 9.4 | 39.5 | 121.5301 | 42.9 | 107.4 | 114.8155 | #N/A | #N/A  | #N/A     |
| 28.553333 | 35.31894 | 136.0774 | 116.6122   | 114.1239 | -0.7404661 | 114.1793 | 114.1793 | 114.2383 | 57.6 | 29.7 | 113.6291 | 11.4 | 67.5 | 108.0375 | 9.4 | 39.5 | 120.5702 | 42.9 | 107.4 | 115.1756 | #N/A | #N/A  | #N/A     |
| 28.556667 | 35.31894 | 136.0774 | 116.6103   | 113.8278 | -0.7405446 | 114.7633 | 114.8645 | 114.6859 | 57.6 | 29.7 | 115.7174 | 11.4 | 67.5 | 117.2965 | 9.4 | 39.5 | 119.1809 | 42.9 | 107.4 | 113.0989 | 44.4 | 152.7 | 114.5064 |
| 28.56     | 35.31894 | 136.0774 | 116.6154   | 123.1586 | -0.7406462 | 119.8053 | 120.5087 | 120.8138 | 57.6 | 29.7 | 126.8616 | 11.4 | 67.5 | 112.7837 | 9.3 | 39.5 | 118.3253 | 42.9 | 107.4 | 111.5095 | 44.4 | 152.7 | 118.0213 |
| 28.563333 | 35.31894 | 136.0774 | 116.6129   | 119.1251 | -0.7407202 | 117.6334 | 117.6334 | 117.7536 | 57.6 | 29.7 | 120.5962 | 11.4 | 67.5 | 114.2696 | 9.3 | 39.5 | 117.2556 | 42.9 | 107.4 | 113.3803 | #N/A | #N/A  | #N/A     |
| 28.566667 | 35.31894 | 136.0774 | 116.6072   | 117.2819 | -0.7408057 | 115.118  | 114.7532 | 115.1    | 57.6 | 29.7 | 115.8185 | 11.4 | 67.5 | 102.7815 | 9.3 | 39.5 | 117.04   | 42.9 | 107.4 | 113.9947 | 44.4 | 152.7 | 116.0431 |
| 28.57     | 35.31894 | 136.0774 | 116.6137</ |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 28.576667 | 35.31894 | 136.0774 | 116.5941 | 121.8387 | -0.7410656 | 116.7417 | 116.7417 | 117.4841 | 57.6 | 29.8 | 119.722  | 11.4 | 67.4 | 96.2018  | 9.3 | 39.5 | 114.0283 | 42.9 | 107.4 | 114.0412 | #N/A | #N/A  | #N/A     |
| 28.58     | 35.31894 | 136.0774 | 116.5858 | 120.9866 | -0.7411453 | 116.5021 | 116.5021 | 117.2262 | 57.6 | 29.8 | 117.6311 | 11.4 | 67.4 | 96.3592  | 9.3 | 39.5 | 114.022  | 42.9 | 107.4 | 116.6033 | #N/A | #N/A  | #N/A     |
| 28.583333 | 35.31894 | 136.0774 | 116.5773 | 116.4079 | -0.7412214 | 113.3665 | 113.3665 | 113.9199 | 57.6 | 29.8 | 113.4105 | 11.4 | 67.4 | 95.1929  | 9.3 | 39.5 | 115.6284 | 42.9 | 107.4 | 114.7035 | #N/A | #N/A  | #N/A     |
| 28.586667 | 35.31894 | 136.0774 | 116.5667 | 118.6387 | -0.7413074 | 114.7861 | 114.7861 | 115.4783 | 57.6 | 29.8 | 114.9171 | 11.4 | 67.4 | 92.5232  | 9.3 | 39.5 | 116.9134 | 42.9 | 107.4 | 116.3416 | #N/A | #N/A  | #N/A     |
| 28.59     | 35.31894 | 136.0774 | 116.5662 | 116.3559 | -0.7413832 | 113.9993 | 113.9993 | 114.477  | 57.6 | 29.8 | 113.4669 | 11.4 | 67.4 | 96.3844  | 9.3 | 39.5 | 118.8382 | 42.9 | 107.4 | 116.0309 | #N/A | #N/A  | #N/A     |
| 28.593333 | 35.31894 | 136.0774 | 116.5618 | 95.8733  | -0.7414535 | 96.24296 | 113.0763 | 113.5918 | 57.5 | 29.8 | 111.354  | 11.4 | 67.4 | 91.8614  | 9.3 | 39.5 | 121.6248 | 42.9 | 107.4 | 117.0269 | 44.4 | 152.7 | 53.6077  |
| 28.596667 | 35.31894 | 136.0774 | 116.5577 | 97.014   | -0.7415382 | 96.86722 | 114.2057 | 114.7671 | 57.5 | 29.8 | 113.9151 | 11.4 | 67.4 | 90.8649  | 9.3 | 39.5 | 123.8714 | 42.9 | 107.4 | 116.0749 | 44.4 | 152.7 | 52.9525  |
| 28.6      | 35.31894 | 136.0774 | 116.5524 | 95.8915  | -0.7416165 | 96.67375 | 115.1798 | 115.6919 | 57.5 | 29.8 | 113.2906 | 11.4 | 67.4 | 92.2544  | 9.3 | 39.5 | 126.4407 | 42.9 | 107.4 | 119.3781 | 44.4 | 152.7 | 49.8017  |
| 28.603333 | 35.31894 | 136.0774 | 116.5471 | 93.7754  | -0.7416993 | 94.46432 | 114.0904 | 114.6557 | 57.5 | 29.8 | 112.501  | 11.4 | 67.4 | 87.5512  | 9.3 | 39.5 | 128.3649 | 42.9 | 107.4 | 117.9632 | 44.4 | 152.7 | 44.7556  |
| 28.606667 | 35.31894 | 136.0774 | 116.5442 | 93.7306  | -0.7417755 | 95.80508 | 114.2003 | 114.5648 | 57.5 | 29.8 | 111.2348 | 11.4 | 67.4 | 92.2001  | 9.3 | 39.5 | 130.7168 | 42.9 | 107.4 | 119.6766 | 44.4 | 152.7 | 49.2137  |
| 28.61     | 35.31895 | 136.0774 | 116.548  | 99.6367  | -0.7418532 | 102.7612 | 116.3025 | 116.3354 | 57.5 | 29.8 | 115.0144 | 11.4 | 67.4 | 97.993   | 9.3 | 39.5 | 142.2169 | 42.9 | 107.4 | 118.3631 | 44.4 | 152.7 | 68.4639  |
| 28.613333 | 35.31895 | 136.0774 | 116.5314 | 104.0643 | -0.7419353 | 107.238  | 117.6647 | 117.6081 | 57.5 | 29.8 | 117.0363 | 11.4 | 67.4 | 98.9349  | 9.3 | 39.5 | 148.229  | 42.9 | 107.4 | 118.4858 | 44.4 | 152.7 | 80.8295  |
| 28.616667 | 35.31895 | 136.0774 | 116.5421 | 105.4425 | -0.7420224 | 107.5624 | 116.5741 | 116.6471 | 57.5 | 29.8 | 116.1212 | 11.4 | 67.4 | 95.4611  | 9.3 | 39.5 | 144.8768 | 42.9 | 107.5 | 117.4544 | 44.4 | 152.7 | 84.7374  |
| 28.62     | 35.31895 | 136.0774 | 116.5344 | 105.4285 | -0.7420996 | 108.7185 | 117.7669 | 117.6589 | 57.5 | 29.8 | 117.6461 | 11.4 | 67.4 | 97.723   | 9.3 | 39.5 | 152.6092 | 42.9 | 107.5 | 117.6785 | 44.4 | 152.7 | 85.8009  |
| 28.623333 | 35.31895 | 136.0774 | 116.5248 | 105.5657 | -0.7421849 | 108.2104 | 117.5248 | 117.4826 | 57.5 | 29.8 | 117.8267 | 11.4 | 67.4 | 99.0986  | 9.3 | 39.5 | 146.9893 | 42.9 | 107.5 | 116.9543 | 44.4 | 152.7 | 84.6189  |
| 28.626667 | 35.31895 | 136.0774 | 116.525  | 110.6695 | -0.7422907 | 108.072  | 116.7645 | 117.4693 | 57.5 | 29.8 | 117.2414 | 11.4 | 67.4 | 92.8001  | 9.3 | 39.5 | 120.9121 | 42.9 | 107.5 | 117.8192 | 44.4 | 152.7 | 86.0555  |
| 28.63     | 35.31895 | 136.0774 | 116.5273 | 114.472  | -0.7423838 | 109.4586 | 117.5305 | 118.5245 | 57.5 | 29.8 | 118.9723 | 11.4 | 67.4 | 93.0308  | 9.3 | 39.5 | 109.4697 | 42.9 | 107.5 | 117.8372 | 44.4 | 152.7 | 89.0141  |
| 28.633333 | 35.31895 | 136.0774 | 116.5286 | 118.3296 | -0.742475  | 111.3471 | 118.5043 | 119.7275 | 57.5 | 29.8 | 120.9306 | 11.4 | 67.4 | 92.4639  | 9.3 | 39.5 | 102.4397 | 42.9 | 107.5 | 117.8806 | 44.4 | 152.7 | 93.2197  |
| 28.636667 | 35.31895 | 136.0774 | 116.5332 | 118.7502 | -0.74256   | 111.1737 | 118.0895 | 119.3746 | 57.5 | 29.8 | 120.3859 | 11.4 | 67.4 | 94.5401  | 9.3 | 39.5 | 95.5113  | 42.9 | 107.5 | 117.8223 | 44.4 | 152.8 | 93.6574  |
| 28.64     | 35.31895 | 136.0774 | 116.5288 | 117.8785 | -0.7426383 | 111.2259 | 117.7038 | 118.8837 | 57.5 | 29.8 | 119.5311 | 11.4 | 67.4 | 92.4743  | 9.3 | 39.5 | 102.3732 | 42.9 | 107.5 | 117.89   | 44.4 | 152.8 | 94.8188  |
| 28.643333 | 35.31895 | 136.0774 | 116.5341 | 118.6489 | -0.7427243 | 111.1784 | 117.5336 | 118.8381 | 57.5 | 29.8 | 119.4611 | 11.4 | 67.4 | 90.051   | 9.3 | 39.5 | 99.9696  | 42.9 | 107.5 | 117.8817 | 44.4 | 152.8 | 95.0821  |
| 28.646667 | 35.31895 | 136.0774 | 116.5325 | 119.2326 | -0.7428048 | 112.1766 | 118.0048 | 119.2423 | 57.5 | 29.8 | 120.3018 | 11.4 | 67.4 | 88.7717  | 9.3 | 39.5 | 106.0775 | 42.9 | 107.5 | 117.6158 | 44.4 | 152.8 | 97.415   |
| 28.65     | 35.31895 | 136.0774 | 116.5459 | 119.9282 | -0.7428895 | 112.3518 | 117.3972 | 118.686  | 57.5 | 29.8 | 119.2387 | 11.4 | 67.4 | 90.8481  | 9.3 | 39.5 | 99.1433  | 42.9 | 107.5 | 117.8375 | 44.4 | 152.8 | 99.5731  |
| 28.653333 | 35.31895 | 136.0774 | 116.5437 | 121.3399 | -0.7429737 | 113.3559 | 118.2906 | 119.6161 | 57.5 | 29.8 | 120.8647 | 11.4 | 67.4 | 90.5396  | 9.3 | 39.5 | 100.1811 | 42.9 | 107.5 | 117.6995 | 44.4 | 152.8 | 100.8575 |
| 28.656667 | 35.31895 | 136.0774 | 116.5502 | 121.3404 | -0.743056  | 113.3708 | 118.1686 | 119.4759 | 57.5 | 29.8 | 120.7735 | 11.4 | 67.4 | 91.9942  | 9.3 | 39.5 | 98.5239  | 42.9 | 107.5 | 117.484  | 44.4 | 152.8 | 101.2188 |
| 28.66     | 35.31895 | 136.0774 | 116.5378 | 122.0259 | -0.7431383 | 114.068  | 118.339  | 119.624  | 57.5 | 29.8 | 121.075  | 11.4 | 67.4 | 92.8283  | 9.3 | 39.5 | 98.7001  | 42.9 | 107.5 | 117.3967 | 44.4 | 152.8 | 103.2507 |
| 28.663333 | 35.31895 | 136.0774 | 116.5239 | 121.4284 | -0.7432181 | 114.0503 | 117.827  | 119.0281 | 57.5 | 29.8 | 120.1144 | 11.4 | 67.4 | 93.6637  | 9.3 | 39.5 | 99.9501  | 42.9 | 107.5 | 117.3606 | 44.4 | 152.8 | 104.4847 |
| 28.666667 | 35.31895 | 136.0774 | 116.5192 | 122.2784 | -0.7433015 | 114.6591 | 117.8939 | 119.1131 | 57.5 | 29.8 | 120.2292 | 11.4 | 67.4 | 94.0556  | 9.3 | 39.5 | 98.7175  | 42.9 | 107.5 | 117.3998 | 44.4 | 152.8 | 106.4659 |
| 28.67     | 35.31895 | 136.0774 | 116.515  | 123.1186 | -0.7433864 | 114.9478 | 117.9672 | 119.2531 | 57.5 | 29.8 | 120.4676 | 11.4 | 67.4 | 94.004   | 9.3 | 39.5 | 95.9779  | 42.9 | 107.5 | 117.3887 | 44.4 | 152.8 | 107.3004 |
| 28.673333 | 35.31895 | 136.0774 | 116.506  | 122.5914 | -0.7434648 | 115.2995 | 117.7742 | 118.9431 | 57.5 | 29.8 | 119.796  | 11.4 | 67.4 | 94.1306  | 9.3 | 39.5 | 100.5683 | 42.9 | 107.5 | 117.6338 | 44.4 | 152.8 | 109.0315 |
| 28.676667 | 35.31895 | 136.0774 | 116.508  | 123.4988 | -0.7435489 | 115.8067 | 118.0738 | 119.3248 | 57.5 | 29.8 | 119.2479 | 11.4 | 67.4 | 94.4304  | 9.3 | 39.5 | 97.173   | 42.9 | 107.5 | 119.4429 | 44.4 | 152.8 | 110.0646 |
| 28.68     | 35.31895 | 136.0774 | 116.4986 | 123.6248 | -0.7436284 | 116.5889 | 119.2694 | 120.4877 | 57.5 | 29.8 | 119.2377 | 11.4 | 67.4 | 94.9918  | 9.3 | 39.5 | 100.791  | 42.9 | 107.5 | 122.4065 | 44.4 | 152.8 | 109.7996 |
| 28.683333 | 35.31895 | 136.0774 | 116.51   | 122.7193 | -0.7437096 | 115.9445 | 118.1994 | 119.3108 | 57.5 | 29.8 | 119.475  | 11.4 | 67.4 | 95.7314  | 9.3 | 39.5 | 101.8202 | 42.9 | 107.5 | 119.0588 | 44.4 | 152.8 | 110.2332 |
| 28.686667 | 35.31895 | 136.0774 | 116.5149 | 122.4776 | -0.7437881 | 116.5471 | 119.007  | 120.0164 | 57.5 | 29.8 | 119.9805 | 11.4 | 67.4 | 96.6442  | 9.3 | 39.5 | 107.0574 | 42.9 | 107.5 | 120.0715 | 44.4 | 152.8 | 110.3169 |
| 28.69     | 35.31895 | 136.0774 | 116.5141 | 122.6685 | -0.7438709 | 116.6331 | 118.8673 | 119.8777 | 57.5 | 29.8 | 120.011  | 11.4 | 67.4 | 96.8507  | 9.3 | 39.5 | 106.3557 | 42.9 | 107.5 | 119.6732 | 44.4 | 152.8 | 110.9742 |
| 28.693333 | 35.31895 | 136.0774 | 116.5222 | 122.3971 | -0.743953  | 116.4253 | 118.5644 | 119.5435 | 57.5 | 29.8 | 120.1029 | 11.4 | 67.4 | 97.3239  | 9.3 | 39.5 | 106.2988 | 42.9 | 107.5 | 118.6848 | 44.4 | 152.8 | 111.0073 |
| 28.696667 | 35.31895 | 136.0774 | 116.5231 | 122.6814 | -0.7440385 | 116.0148 | 117.8607 | 118.9028 | 57.5 | 29.8 | 120.0907 | 11.4 | 67.4 | 96.8205  | 9.3 | 39.5 | 102.4629 | 42.9 | 107.5 | 117.0793 | 44.4 | 152.8 | 111.3394 |
| 28.7      | 35.31895 | 136.0774 | 116.5398 | 122.8196 | -0.7441175 | 116.9    | 119.1942 | 120.14   | 57.5 | 29.8 | 121.4032 | 11.4 | 67.4 | 98.7012  | 9.3 | 39.5 | 107.3721 | 42.8 | 107.5 | 118.1936 | 44.4 | 152.8 | 111.0974 |
| 28.703333 | 35.31895 | 136.0774 | 116.5399 | 121.1623 | -0.7441863 | 118.2569 | 121.1733 | 121.5999 | 57.5 | 29.8 | 123.6869 | 11.4 | 67.4 | 113.8052 | 9.3 | 39.5 | 113.0363 | 42.8 | 107.5 | 118.3842 | 44.4 | 152.8 | 110.8807 |
| 28.706667 | 35.31895 | 136.0774 | 116.545  | 115.726  | -0.7442514 | 116.6849 | 118.8883 | 118.794  | 57.5 | 29.8 | 118.3371 | 11.4 | 67.4 | 122.2067 | 9.3 | 39.5 | 118.1619 | 42.8 | 107.5 | 119.4979 | 44.4 | 152.8 | 111.1118 |
| 28.71     | 35.31895 | 136.0774 | 116.5327 | 111.9471 | -0.7443245 | 114.9709 | 116.4447 | 116.0152 | 57.5 | 29.8 | 115.6135 | 11.4 | 67.4 | 125.4903 | 9.3 | 39.5 | 122.204  | 42.8 | 107.5 | 116.6342 | 44.4 | 152.8 | 111.2432 |
| 28.713333 | 35.31895 | 136.0774 | 116.5267 | 113.6619 | -0.7444043 | 117.2578 | 119.5939 | 119.143  | 57.5 | 29.8 | 117.9172 | 11.4 | 67.4 | 127.4513 | 9.3 | 39.5 | 128.0877 | 42.8 | 107.5 | 121.0318 | 44.4 | 152.8 | 111.3493 |
| 28.716667 | 35.31895 | 136.0774 | 116.5259 | 114.2067 | -0.744489  | 117.2712 | 119.6298 | 119.3128 | 57.5 | 29.8 | 117.9246 | 11.4 | 67.4 | 120.0682 | 9.3 | 39.5 | 133.2097 | 42.8 | 107.5 | 121.4519 | 44.4 | 152.8 | 111.3057 |
| 28.72     | 35.31895 | 136.0774 | 116.5178 | 110.2594 | -0.7445623 | 115.3663 | 116.9004 | 116.2347 | 57.5 | 29.8 | 114.6417 | 11.4 | 67.4 | 126.17   | 9.3 | 39.5 | 132.931  | 42.8 | 107.5 | 118.6893 | 44.4 | 152.8 | 111.4861 |
| 28.723333 | 35.31895 | 136.0774 | 116.5072 | 111.0211 | -0.7446434 | 116.3977 | 118.1701 | 117.4548 | 57.5 | 29.8 | 116.3648 | 11.4 | 67.4 | 127.5108 | 9.3 | 39.5 | 136.3239 | 42.8 | 107.5 | 119.1344 | 44.4 | 152.8 | 111.9149 |
| 28.726667 | 35.31895 | 136.0774 | 116      |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 28.733333 | 35.31895 | 136.0774 | 116.4881 | 110.9197 | -0.7448914 | 116.0583 | 117.5431 | 116.8984 | 57.5 | 29.8 | 116.7146 | 11.4 | 67.4 | 116.8893 | 9.3 | 39.5 | 147.4751 | 42.8 | 107.5 | 117.1816 | 44.4 | 152.8 | 112.3031 |
| 28.736667 | 35.31895 | 136.0774 | 116.4796 | 113.1354 | -0.7449813 | 116.5808 | 118.241  | 117.9503 | 57.5 | 29.8 | 116.5953 | 11.4 | 67.4 | 106.6763 | 9.3 | 39.5 | 148.5944 | 42.8 | 107.5 | 120.0382 | 44.4 | 152.8 | 112.3817 |
| 28.74     | 35.31895 | 136.0774 | 116.4809 | 111.7375 | -0.7450592 | 116.1895 | 117.7234 | 117.2803 | 57.5 | 29.8 | 115.8355 | 11.4 | 67.4 | 108.6278 | 9.3 | 39.5 | 151.2311 | 42.8 | 107.5 | 119.5065 | 44.4 | 152.8 | 112.31   |
| 28.743333 | 35.31895 | 136.0774 | 116.4805 | 114.3226 | -0.7451512 | 116.5939 | 118.2368 | 118.0941 | 57.5 | 29.8 | 118.3231 | 11.4 | 67.4 | 100.4415 | 9.3 | 39.5 | 151.2666 | 42.8 | 107.5 | 117.7412 | 44.4 | 152.8 | 112.4388 |
| 28.746667 | 35.31895 | 136.0774 | 116.4639 | 116.491  | -0.745232  | 119.1578 | 119.1578 | 118.867  | 57.5 | 29.8 | 119.7765 | 11.4 | 67.4 | 107.4146 | 9.3 | 39.5 | 149.7878 | 42.8 | 107.5 | 117.4655 | #N/A | #N/A  | #N/A     |
| 28.75     | 35.31895 | 136.0774 | 116.4625 | 117.2052 | -0.7453147 | 119.7769 | 119.7769 | 119.4756 | 57.5 | 29.8 | 120.3599 | 11.4 | 67.4 | 111.1253 | 9.3 | 39.5 | 146.2486 | 42.8 | 107.5 | 118.1131 | #N/A | #N/A  | #N/A     |
| 28.753333 | 35.31895 | 136.0774 | 116.4553 | 119.7985 | -0.7454021 | 121.2232 | 121.2232 | 121.0263 | 57.5 | 29.8 | 122.8468 | 11.4 | 67.4 | 114.2184 | 9.3 | 39.5 | 140.5459 | 42.8 | 107.5 | 118.2213 | #N/A | #N/A  | #N/A     |
| 28.756667 | 35.31895 | 136.0774 | 116.4605 | 120.4324 | -0.74549   | 120.5844 | 120.5844 | 120.5561 | 57.5 | 29.8 | 121.4849 | 11.4 | 67.4 | 117.4011 | 9.3 | 39.5 | 126.616  | 42.8 | 107.5 | 119.125  | #N/A | #N/A  | #N/A     |
| 28.76     | 35.31895 | 136.0774 | 116.4577 | 122.0972 | -0.7455844 | 119.4908 | 119.4908 | 119.8689 | 57.5 | 29.8 | 120.6819 | 11.4 | 67.4 | 110.8842 | 9.3 | 39.5 | 115.3825 | 42.8 | 107.5 | 118.6162 | #N/A | #N/A  | #N/A     |
| 28.763333 | 35.31895 | 136.0774 | 116.4516 | 123.4955 | -0.7456682 | 120.5415 | 120.5415 | 120.9259 | 57.5 | 29.8 | 121.9887 | 11.4 | 67.4 | 115.908  | 9.3 | 39.5 | 110.2089 | 42.8 | 107.5 | 119.2883 | #N/A | #N/A  | #N/A     |
| 28.766667 | 35.31895 | 136.0774 | 116.4506 | 125.883  | -0.7457607 | 120.6083 | 120.6083 | 121.2922 | 57.5 | 29.9 | 122.923  | 11.4 | 67.4 | 113.8844 | 9.3 | 39.5 | 99.9479  | 42.8 | 107.5 | 118.7795 | #N/A | #N/A  | #N/A     |
| 28.77     | 35.31895 | 136.0774 | 116.4481 | 125.0237 | -0.7458389 | 120.6924 | 120.6924 | 121.2787 | 57.5 | 29.9 | 122.6154 | 11.4 | 67.4 | 111.9481 | 9.3 | 39.5 | 107.4364 | 42.8 | 107.5 | 119.2192 | #N/A | #N/A  | #N/A     |
| 28.773333 | 35.31895 | 136.0774 | 116.44   | 129.0268 | -0.7459354 | 121.4625 | 121.4625 | 122.4782 | 57.5 | 29.9 | 124.1077 | 11.4 | 67.4 | 110.5384 | 9.3 | 39.5 | 92.1827  | 42.8 | 107.5 | 119.9675 | #N/A | #N/A  | #N/A     |
| 28.776667 | 35.31895 | 136.0774 | 116.4369 | 127.7063 | -0.7460168 | 120.3397 | 120.3397 | 121.3469 | 57.5 | 29.9 | 122.7233 | 11.4 | 67.4 | 108.3348 | 9.3 | 39.5 | 93.0649  | 42.8 | 107.5 | 119.226  | #N/A | #N/A  | #N/A     |
| 28.78     | 35.31895 | 136.0774 | 116.431  | 129.1629 | -0.7461062 | 120.1874 | 120.1874 | 121.4988 | 57.5 | 29.9 | 122.5387 | 11.4 | 67.4 | 97.4912  | 9.3 | 39.5 | 95.2434  | 42.8 | 107.5 | 119.8964 | #N/A | #N/A  | #N/A     |
| 28.783333 | 35.31895 | 136.0774 | 116.4241 | 129.4175 | -0.7461946 | 119.0626 | 119.0626 | 120.637  | 57.5 | 29.9 | 121.216  | 11.4 | 67.4 | 87.7076  | 9.3 | 39.5 | 95.2572  | 42.8 | 107.5 | 119.7448 | #N/A | #N/A  | #N/A     |
| 28.786667 | 35.31895 | 136.0774 | 116.4207 | 127.7097 | -0.7462738 | 118.0459 | 118.0459 | 119.4699 | 57.5 | 29.9 | 120.3068 | 11.4 | 67.4 | 93.344   | 9.3 | 39.5 | 91.041   | 42.8 | 107.5 | 118.1805 | #N/A | #N/A  | #N/A     |
| 28.79     | 35.31895 | 136.0774 | 116.411  | 128.7111 | -0.7463602 | 118.1208 | 118.1208 | 119.7023 | 57.5 | 29.9 | 120.6385 | 11.4 | 67.4 | 88.2274  | 9.3 | 39.5 | 91.8091  | 42.8 | 107.5 | 118.2599 | #N/A | #N/A  | #N/A     |
| 28.793333 | 35.31895 | 136.0774 | 116.4109 | 126.7524 | -0.7464378 | 117.2458 | 117.2458 | 118.7548 | 57.5 | 29.9 | 118.3423 | 11.4 | 67.4 | 84.5213  | 9.3 | 39.4 | 98.4266  | 42.8 | 107.5 | 119.3903 | #N/A | #N/A  | #N/A     |
| 28.796667 | 35.31895 | 136.0774 | 116.4045 | 117.055  | -0.7465083 | 110.353  | 116.9304 | 118.2013 | 57.5 | 29.9 | 117.9286 | 11.4 | 67.4 | 85.9221  | 9.3 | 39.4 | 106.2371 | 42.8 | 107.5 | 118.6215 | 44.4 | 152.8 | 93.7172  |
| 28.8      | 35.31895 | 136.0774 | 116.3967 | 115.9802 | -0.7465817 | 111.2599 | 118.3746 | 119.309  | 57.5 | 29.9 | 119.688  | 11.4 | 67.4 | 95.1688  | 9.3 | 39.4 | 111.122  | 42.8 | 107.5 | 118.725  | 44.4 | 152.8 | 93.2651  |
| 28.803333 | 35.31895 | 136.0774 | 116.3785 | 114.6645 | -0.7466622 | 110.3496 | 118.5153 | 119.4399 | 57.5 | 29.9 | 119.8537 | 11.4 | 67.4 | 92.0728  | 9.3 | 39.4 | 116.5473 | 42.8 | 107.5 | 118.8023 | 44.4 | 152.8 | 89.6967  |
| 28.806667 | 35.31895 | 136.0774 | 116.3619 | 116.821  | -0.7467472 | 111.9013 | 119.7351 | 120.7452 | 57.5 | 29.9 | 121.9228 | 11.4 | 67.4 | 88.2738  | 9.3 | 39.4 | 121.4318 | 42.8 | 107.5 | 118.9307 | 44.4 | 152.8 | 92.0878  |
| 28.81     | 35.31895 | 136.0774 | 116.3273 | 115.5335 | -0.7468233 | 112.0067 | 118.9076 | 119.7103 | 57.5 | 29.9 | 120.2667 | 11.4 | 67.4 | 90.7274  | 9.3 | 39.4 | 125.0141 | 42.8 | 107.5 | 118.8529 | 44.4 | 152.8 | 94.5528  |
| 28.813333 | 35.31895 | 136.0774 | 116.3003 | 110.673  | -0.7468897 | 110.7016 | 117.0976 | 117.4181 | 57.5 | 29.9 | 116.3538 | 11.4 | 67.3 | 96.0906  | 9.3 | 39.4 | 134.1311 | 42.8 | 107.5 | 119.0579 | 44.4 | 152.8 | 94.5246  |
| 28.816667 | 35.31895 | 136.0774 | 116.2892 | 106.8422 | -0.7469571 | 110.2008 | 115.9862 | 115.8579 | 57.5 | 29.9 | 113.8484 | 11.4 | 67.3 | 98.279   | 9.3 | 39.4 | 148.2347 | 42.8 | 107.5 | 118.9543 | 44.4 | 152.8 | 95.5684  |
| 28.82     | 35.31895 | 136.0774 | 116.2677 | 107.3241 | -0.74704   | 110.548  | 117.0148 | 116.8754 | 57.5 | 29.9 | 115.4609 | 11.4 | 67.3 | 102.1398 | 9.3 | 39.4 | 145.5255 | 42.8 | 107.5 | 119.055  | 44.4 | 152.8 | 94.1919  |
| 28.823333 | 35.31895 | 136.0774 | 116.2403 | 106.4328 | -0.7471136 | 111.6117 | 118.3134 | 117.91   | 57.5 | 29.9 | 117.2179 | 11.4 | 67.3 | 101.064  | 9.3 | 39.4 | 162.2367 | 42.8 | 107.5 | 118.9764 | 44.4 | 152.8 | 94.6614  |
| 28.826667 | 35.31895 | 136.0774 | 116.2133 | 107.7742 | -0.7472029 | 111.3949 | 118.5654 | 118.4304 | 57.5 | 29.9 | 118.0441 | 11.4 | 67.3 | 93.2067  | 9.3 | 39.4 | 162.5636 | 42.8 | 107.5 | 119.0256 | 44.4 | 152.8 | 93.2592  |
| 28.83     | 35.31895 | 136.0774 | 116.208  | 109.2142 | -0.7472916 | 111.396  | 118.0758 | 118.1295 | 57.5 | 29.9 | 117.5659 | 11.4 | 67.3 | 92.7473  | 9.3 | 39.4 | 153.5563 | 42.8 | 107.6 | 118.9979 | 44.4 | 152.8 | 94.5011  |
| 28.833333 | 35.31895 | 136.0774 | 116.1919 | 113.9557 | -0.7473797 | 114.8135 | 117.9073 | 118.0415 | 57.5 | 29.9 | 117.439  | 11.4 | 67.3 | 96.073   | 9.3 | 39.4 | 144.542  | 42.8 | 107.6 | 118.9698 | 44.4 | 152.8 | 106.9886 |
| 28.836667 | 35.31895 | 136.0774 | 116.1819 | 116.208  | -0.7474676 | 115.805  | 117.184  | 117.4753 | 57.5 | 29.9 | 116.6079 | 11.4 | 67.3 | 94.7302  | 9.2 | 39.4 | 138.1338 | 42.8 | 107.6 | 118.8119 | 44.4 | 152.8 | 112.3186 |
| 28.84     | 35.31895 | 136.0774 | 116.1737 | 117.0729 | -0.7475564 | 115.2015 | 116.8377 | 117.321  | 57.5 | 29.9 | 116.522  | 11.4 | 67.3 | 94.7948  | 9.2 | 39.4 | 128.35   | 42.8 | 107.6 | 118.5521 | 44.4 | 152.8 | 111.0651 |
| 28.843333 | 35.31895 | 136.0774 | 116.1672 | 117.3768 | -0.7476394 | 115.35   | 117.0969 | 117.571  | 57.5 | 29.9 | 116.9536 | 11.4 | 67.3 | 98.205   | 9.2 | 39.4 | 124.2159 | 42.8 | 107.6 | 118.5222 | 44.4 | 152.8 | 110.9337 |
| 28.846667 | 35.31895 | 136.0774 | 116.1474 | 118.11   | -0.7477249 | 115.3562 | 116.3884 | 116.9184 | 57.5 | 29.9 | 116.0801 | 11.4 | 67.3 | 101.6163 | 9.2 | 39.4 | 114.6459 | 42.8 | 107.6 | 118.2102 | 44.4 | 152.8 | 112.7467 |
| 28.85     | 35.31895 | 136.0774 | 116.165  | 117.6308 | -0.7478055 | 115.2514 | 116.2449 | 116.7034 | 57.5 | 29.9 | 115.6618 | 11.4 | 67.3 | 105.0263 | 9.2 | 39.4 | 112.3516 | 42.8 | 107.6 | 118.3084 | 44.4 | 152.8 | 112.7396 |
| 28.853333 | 35.31895 | 136.0774 | 116.1595 | 118.9884 | -0.7478939 | 115.2495 | 116.5019 | 117.1186 | 57.5 | 29.9 | 116.2995 | 11.4 | 67.3 | 107.4658 | 9.2 | 39.4 | 102.0151 | 42.8 | 107.6 | 118.3806 | 44.4 | 152.8 | 112.0835 |
| 28.856667 | 35.31895 | 136.0774 | 116.1585 | 120.9051 | -0.7479827 | 115.7084 | 116.6721 | 117.4324 | 57.5 | 29.9 | 116.7704 | 11.4 | 67.3 | 112.1931 | 9.2 | 39.4 | 88.6329  | 42.8 | 107.6 | 118.4524 | 44.4 | 152.8 | 113.2718 |
| 28.86     | 35.31895 | 136.0774 | 116.1495 | 119.723  | -0.7480604 | 115.5346 | 116.512  | 117.157  | 57.5 | 29.9 | 116.2694 | 11.4 | 67.3 | 110.9276 | 9.2 | 39.4 | 95.4527  | 42.8 | 107.6 | 118.5246 | 44.4 | 152.8 | 113.0636 |
| 28.863333 | 35.31895 | 136.0774 | 116.1416 | 121.5355 | -0.7481496 | 115.7965 | 116.3481 | 117.2188 | 57.5 | 29.9 | 116.4087 | 11.4 | 67.3 | 106.6705 | 9.2 | 39.4 | 91.1902  | 42.8 | 107.6 | 118.4669 | 44.4 | 152.8 | 114.402  |
| 28.866667 | 35.31895 | 136.0774 | 116.1332 | 120.7885 | -0.7482279 | 115.9454 | 116.6592 | 117.377  | 57.4 | 29.9 | 116.6723 | 11.4 | 67.3 | 111.3913 | 9.2 | 39.4 | 91.8179  | 42.8 | 107.6 | 118.4604 | 44.4 | 152.8 | 114.1431 |
| 28.87     | 35.31895 | 136.0774 | 116.1249 | 118.2677 | -0.7483033 | 114.9691 | 116.2482 | 116.7733 | 57.4 | 29.9 | 115.7973 | 11.4 | 67.3 | 112.2397 | 9.2 | 39.4 | 98.3124  | 42.8 | 107.6 | 118.2739 | 44.4 | 152.8 | 111.7393 |
| 28.873333 | 35.31895 | 136.0774 | 116.1102 | 117.7841 | -0.7483871 | 114.131  | 116.2276 | 116.8149 | 57.4 | 29.9 | 115.8534 | 11.4 | 67.3 | 112.2061 | 9.2 | 39.4 | 95.4616  | 42.8 | 107.6 | 118.2932 | 44.4 | 152.8 | 108.8371 |
| 28.876667 | 35.31895 | 136.0774 | 116.0916 | 115.1524 | -0.7484586 | 113.9102 | 116.9306 | 117.1697 | 57.4 | 29.9 | 116.427  | 11.4 | 67.3 | 118.0685 | 9.2 | 39.4 | 104.2391 | 42.8 | 107.6 | 118.3114 | 44.4 | 152.8 | 106.284  |
| 28.88     | 35.31895 | 136.0774 | 116.0796 | 113.2568 | -0.7485318 | 114.035  | 117.81   | 117.7565 | 57.4 | 29.9 | 117.5176 | 11.4 | 67.3 | 121.9057 | 9.2 | 39.4 | 113.9989 | 42.8 | 107.6 | 118.1239 | 44.4 | 152.8 | 104.5037 |
| 28.883333 | 35.31895 | 136.0774 | 116.0759 | 110.4543 | -0.7486046 | 113.3528 | 117.6815 | 117.3508 | 57.4 | 29.9 |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 28.89     | 35.31895 | 136.0774 | 116.0202 | 106.9282 | -0.7487509 | 113.9016 | 118.3186 | 117.4402 | 57.4 | 29.9 | 116.9783 | 11.4 | 67.3 | 126.1878 | 9.2 | 39.4 | 146.5422 | 42.8 | 107.6 | 118.1504 | 44.4 | 152.8 | 102.7491 |
| 28.893333 | 35.31895 | 136.0774 | 115.9919 | 107.1918 | -0.7488328 | 114.2539 | 118.3807 | 117.464  | 57.4 | 29.9 | 117.1572 | 11.4 | 67.3 | 128.1703 | 9.2 | 39.4 | 145.4232 | 42.8 | 107.6 | 117.9357 | 44.4 | 152.8 | 103.8343 |
| 28.896667 | 35.31895 | 136.0774 | 115.969  | 106.4627 | -0.7489118 | 114.2538 | 118.3753 | 117.3625 | 57.4 | 29.9 | 117.0458 | 11.4 | 67.3 | 128.2163 | 9.2 | 39.4 | 149.7433 | 42.8 | 107.6 | 117.8495 | 44.4 | 152.8 | 103.8476 |
| 28.9      | 35.31895 | 136.0774 | 115.9475 | 107.661  | -0.7489978 | 114.6061 | 118.4967 | 117.5602 | 57.4 | 29.9 | 117.2444 | 11.4 | 67.3 | 132.1338 | 9.2 | 39.4 | 140.5729 | 42.8 | 107.6 | 118.0456 | 44.4 | 152.8 | 104.7828 |
| 28.903333 | 35.31895 | 136.0774 | 115.9165 | 109.9641 | -0.74909   | 114.6892 | 118.3216 | 117.6695 | 57.4 | 29.9 | 117.2979 | 11.4 | 67.3 | 132.5281 | 9.2 | 39.4 | 126.4928 | 42.8 | 107.6 | 118.2407 | 44.4 | 152.8 | 105.5177 |
| 28.906667 | 35.31895 | 136.0774 | 115.9017 | 110.9504 | -0.7491765 | 114.7103 | 118.228  | 117.6959 | 57.4 | 29.9 | 117.2479 | 11.4 | 67.3 | 133.3575 | 9.2 | 39.4 | 119.4881 | 42.8 | 107.6 | 118.3846 | 44.4 | 152.8 | 105.8286 |
| 28.91     | 35.31895 | 136.0774 | 115.8856 | 111.5371 | -0.7492602 | 114.9681 | 118.2774 | 117.7667 | 57.4 | 29.9 | 117.3217 | 11.4 | 67.3 | 135.601  | 9.2 | 39.4 | 115.2005 | 42.8 | 107.6 | 118.4509 | 44.4 | 152.9 | 106.6127 |
| 28.913333 | 35.31895 | 136.0774 | 115.8787 | 114.4222 | -0.7493555 | 114.949  | 117.9994 | 117.893  | 57.4 | 29.9 | 117.3536 | 11.4 | 67.3 | 132.3816 | 9.2 | 39.4 | 100.895  | 42.8 | 107.6 | 118.7222 | 44.4 | 152.9 | 107.2473 |
| 28.916667 | 35.31895 | 136.0774 | 115.8808 | 115.2583 | -0.7494413 | 114.9762 | 118.0827 | 118.0592 | 57.4 | 29.9 | 117.4684 | 11.4 | 67.3 | 135.7629 | 9.2 | 39.4 | 92.1387  | 42.8 | 107.6 | 118.9674 | 44.4 | 152.9 | 107.1328 |
| 28.92     | 35.31895 | 136.0774 | 115.8822 | 115.8993 | -0.7495261 | 115.0367 | 118.0839 | 118.1444 | 57.4 | 29.9 | 117.5828 | 11.4 | 67.3 | 134.5643 | 9.2 | 39.4 | 90.1259  | 42.8 | 107.6 | 119.0077 | 44.4 | 152.9 | 107.343  |
| 28.923333 | 35.31895 | 136.0774 | 115.8812 | 114.5239 | -0.7496015 | 115.1986 | 118.3057 | 118.1559 | 57.4 | 29.9 | 117.5932 | 11.4 | 67.3 | 135.9199 | 9.2 | 39.4 | 98.2488  | 42.8 | 107.6 | 119.021  | 44.4 | 152.9 | 107.3536 |
| 28.926667 | 35.31895 | 136.0774 | 115.8729 | 113.1594 | -0.7496768 | 115.3938 | 118.5645 | 118.195  | 57.4 | 29.9 | 117.6655 | 11.4 | 67.3 | 137.9806 | 9.2 | 39.4 | 105.823  | 42.8 | 107.6 | 119.009  | 44.4 | 152.9 | 107.3881 |
| 28.93     | 35.31895 | 136.0774 | 115.8516 | 112.5663 | -0.7497558 | 115.5303 | 118.7317 | 118.2435 | 57.4 | 29.9 | 117.8207 | 11.4 | 67.3 | 140.5646 | 9.2 | 39.4 | 107.7312 | 42.8 | 107.6 | 118.8936 | 44.4 | 152.9 | 107.4473 |
| 28.933333 | 35.31895 | 136.0774 | 115.8397 | 112.8381 | -0.7498394 | 115.4841 | 118.6733 | 118.2413 | 57.4 | 29.9 | 117.8094 | 11.4 | 67.3 | 138.7484 | 9.2 | 39.4 | 107.7868 | 42.8 | 107.6 | 118.9052 | 44.4 | 152.9 | 107.4319 |
| 28.936667 | 35.31895 | 136.0774 | 115.829  | 112.2128 | -0.7499185 | 115.5714 | 118.6831 | 118.164  | 57.4 | 29.9 | 117.7569 | 11.4 | 67.3 | 137.6322 | 9.2 | 39.4 | 113.512  | 42.8 | 107.6 | 118.7898 | 44.4 | 152.9 | 107.7147 |
| 28.94     | 35.31895 | 136.0774 | 115.8218 | 111.8375 | -0.7499983 | 115.7361 | 118.6628 | 118.0905 | 57.4 | 29.9 | 117.6621 | 11.4 | 67.3 | 135.0218 | 9.2 | 39.4 | 119.8869 | 42.8 | 107.6 | 118.7491 | 44.4 | 152.9 | 108.3465 |
| 28.943333 | 35.31895 | 136.0774 | 115.8179 | 112.804  | -0.7500856 | 115.5771 | 118.4575 | 118.0855 | 57.4 | 29.9 | 117.6292 | 11.4 | 67.3 | 128.3573 | 9.2 | 39.4 | 120.377  | 42.8 | 107.6 | 118.7869 | 44.4 | 152.9 | 108.3043 |
| 28.946667 | 35.31895 | 136.0774 | 115.8205 | 112.3528 | -0.7501663 | 115.4532 | 118.2816 | 117.9091 | 57.4 | 29.9 | 117.4311 | 11.4 | 67.3 | 122.8369 | 9.2 | 39.4 | 128.3885 | 42.8 | 107.6 | 118.644  | 44.4 | 152.9 | 108.3118 |
| 28.95     | 35.31895 | 136.0774 | 115.8271 | 111.6281 | -0.7502448 | 115.5785 | 118.424  | 117.8933 | 57.4 | 29.9 | 117.3977 | 11.4 | 67.3 | 128.8488 | 9.2 | 39.4 | 126.8084 | 42.8 | 107.6 | 118.6553 | 44.4 | 152.9 | 108.394  |
| 28.953333 | 35.31895 | 136.0774 | 115.8203 | 110.972  | -0.7503239 | 115.6203 | 118.4302 | 117.807  | 57.4 | 29.9 | 117.2821 | 11.4 | 67.3 | 128.9603 | 9.2 | 39.4 | 130.8919 | 42.8 | 107.6 | 118.614  | 44.4 | 152.9 | 108.5258 |
| 28.956667 | 35.31895 | 136.0774 | 115.8197 | 110.3875 | -0.7504042 | 115.4596 | 118.4301 | 117.7703 | 57.4 | 29.9 | 117.2481 | 11.4 | 67.3 | 126.9598 | 9.2 | 39.4 | 135.6314 | 42.8 | 107.6 | 118.5731 | 44.4 | 152.9 | 107.9594 |
| 28.96     | 35.31895 | 136.0774 | 115.8141 | 110.8996 | -0.7504893 | 115.325  | 118.2202 | 117.685  | 57.4 | 30   | 117.1515 | 11.4 | 67.3 | 121.7026 | 9.2 | 39.4 | 137.423  | 42.8 | 107.6 | 118.5053 | 44.4 | 152.9 | 108.0149 |
| 28.963333 | 35.31895 | 136.0774 | 115.8101 | 108.3353 | -0.7505582 | 115.753  | 118.7759 | 117.812  | 57.4 | 30   | 117.2214 | 11.4 | 67.3 | 127.0913 | 9.2 | 39.4 | 150.2362 | 42.8 | 107.6 | 118.72   | 44.4 | 152.9 | 108.1207 |
| 28.966667 | 35.31895 | 136.0774 | 115.8054 | 105.8762 | -0.7506277 | 116.1379 | 119.2417 | 117.925  | 57.4 | 30   | 117.4352 | 11.4 | 67.3 | 124.558  | 9.2 | 39.4 | 171.4523 | 42.8 | 107.6 | 118.678  | 44.4 | 152.9 | 108.3012 |
| 28.97     | 35.31895 | 136.0774 | 115.8    | 105.3321 | -0.7507072 | 116.2149 | 119.3472 | 117.9877 | 57.4 | 30   | 117.5662 | 11.4 | 67.3 | 119.5599 | 9.2 | 39.4 | 181.3217 | 42.8 | 107.6 | 118.6357 | 44.4 | 152.9 | 108.3063 |
| 28.973333 | 35.31895 | 136.0774 | 115.7981 | 106.3965 | -0.7507945 | 116.1329 | 119.1912 | 118.0413 | 57.4 | 30   | 117.8003 | 11.4 | 67.3 | 111.1264 | 9.2 | 39.4 | 184.2088 | 42.8 | 107.6 | 118.4119 | 44.4 | 152.9 | 108.4111 |
| 28.976667 | 35.31895 | 136.0774 | 115.7881 | 105.8671 | -0.7508736 | 116.3062 | 119.3719 | 118.138  | 57.4 | 30   | 118.0548 | 11.4 | 67.3 | 109.5608 | 9.2 | 39.4 | 190.9143 | 42.8 | 107.6 | 118.2658 | 44.4 | 152.9 | 108.5656 |
| 28.98     | 35.31895 | 136.0774 | 115.7848 | 105.7813 | -0.7509552 | 116.3557 | 119.3803 | 118.1218 | 57.4 | 30   | 118.0396 | 11.4 | 67.3 | 110.2786 | 9.2 | 39.4 | 190.9601 | 42.8 | 107.6 | 118.2482 | 44.4 | 152.9 | 108.719  |
| 28.983333 | 35.31895 | 136.0774 | 115.7668 | 106.3996 | -0.7510399 | 116.425  | 119.4458 | 118.231  | 57.4 | 30   | 118.2319 | 11.4 | 67.3 | 113.5468 | 9.2 | 39.4 | 184.1312 | 42.8 | 107.6 | 118.2296 | 44.4 | 152.9 | 108.7978 |
| 28.986667 | 35.31895 | 136.0774 | 115.7601 | 108.9043 | -0.7511341 | 116.232  | 119.0363 | 118.1706 | 57.4 | 30   | 118.3616 | 11.4 | 67.3 | 112.5929 | 9.2 | 39.4 | 168.5567 | 42.8 | 107.6 | 117.8769 | 44.4 | 152.9 | 109.1513 |
| 28.99     | 35.31895 | 136.0774 | 115.7335 | 110.3176 | -0.7512234 | 116.0552 | 118.7094 | 118.0794 | 57.4 | 30   | 118.4073 | 11.4 | 67.3 | 108.0299 | 9.2 | 39.4 | 163.8981 | 42.8 | 107.6 | 117.5754 | 44.4 | 152.9 | 109.3537 |
| 28.993333 | 35.31895 | 136.0774 | 115.7117 | 113.8059 | -0.7513233 | 115.5808 | 117.9473 | 117.8825 | 57.4 | 30   | 118.3293 | 11.4 | 67.3 | 100.7355 | 9.2 | 39.4 | 147.2248 | 42.8 | 107.6 | 117.1955 | 44.4 | 152.9 | 109.6058 |
| 28.996667 | 35.31895 | 136.0774 | 115.68   | 116.4763 | -0.7514227 | 114.3962 | 116.2258 | 116.6633 | 57.4 | 30   | 118.2303 | 11.4 | 67.3 | 93.6168  | 9.2 | 39.4 | 130.7617 | 42.7 | 107.6 | 114.2452 | 44.4 | 152.9 | 109.7832 |
| 29        | 35.31895 | 136.0774 | 115.663  | 118.8258 | -0.7515165 | 114.1449 | 115.7454 | 116.5059 | 57.4 | 30   | 118.3173 | 11.4 | 67.3 | 94.0681  | 9.2 | 39.4 | 114.0768 | 42.7 | 107.6 | 113.7106 | 44.4 | 152.9 | 110.1096 |
| 29.003333 | 35.31895 | 136.0774 | 115.6396 | 119.7704 | -0.7516008 | 114.631  | 116.3148 | 117.1869 | 57.4 | 30   | 118.4034 | 11.4 | 67.3 | 91.082   | 9.2 | 39.4 | 114.976  | 42.7 | 107.6 | 115.3096 | 44.4 | 152.9 | 110.3857 |
| 29.006667 | 35.31895 | 136.0774 | 115.6046 | 120.703  | -0.7516844 | 115.2446 | 117.0524 | 118.0152 | 57.4 | 30   | 118.3658 | 11.4 | 67.3 | 89.857   | 9.2 | 39.4 | 114.565  | 42.7 | 107.6 | 117.4741 | 44.4 | 152.9 | 110.6864 |
| 29.01     | 35.31895 | 136.0774 | 115.5835 | 120.2773 | -0.7517618 | 115.8865 | 117.8296 | 118.6605 | 57.4 | 30   | 118.6598 | 11.4 | 67.3 | 91.3559  | 9.2 | 39.4 | 120.272  | 42.7 | 107.6 | 118.6616 | 44.4 | 152.9 | 110.9874 |
| 29.013333 | 35.31895 | 136.0774 | 115.5577 | 118.153  | -0.7518348 | 115.8267 | 117.6865 | 118.1979 | 57.4 | 30   | 118.8276 | 11.4 | 67.3 | 94.0888  | 9.2 | 39.4 | 130.3546 | 42.7 | 107.6 | 117.2261 | 44.4 | 152.9 | 111.1375 |
| 29.016667 | 35.31895 | 136.0774 | 115.5482 | 117.6235 | -0.7519135 | 116.0844 | 117.9275 | 118.3346 | 57.4 | 30   | 119.0171 | 11.4 | 67.3 | 94.0904  | 9.2 | 39.4 | 135.7332 | 42.7 | 107.6 | 117.2813 | 44.4 | 152.9 | 111.4372 |
| 29.02     | 35.31895 | 136.0774 | 115.5176 | 116.3204 | -0.7519881 | 116.4782 | 118.3586 | 118.5484 | 57.4 | 30   | 119.3506 | 11.4 | 67.3 | 93.2111  | 9.2 | 39.4 | 148.1078 | 42.7 | 107.6 | 117.3104 | 44.4 | 152.9 | 111.7372 |
| 29.023333 | 35.31895 | 136.0774 | 115.5046 | 115.5249 | -0.752063  | 117.3314 | 119.501  | 119.4856 | 57.4 | 30   | 119.6434 | 11.4 | 67.3 | 96.2906  | 9.2 | 39.4 | 155.6775 | 42.7 | 107.6 | 119.2421 | 44.4 | 152.9 | 111.8613 |
| 29.026667 | 35.31895 | 136.0774 | 115.4955 | 115.8055 | -0.7521416 | 118.4043 | 120.7721 | 120.6791 | 57.4 | 30   | 120.1425 | 11.4 | 67.3 | 97.6975  | 9.2 | 39.4 | 160.2924 | 42.7 | 107.6 | 121.5073 | 44.4 | 152.9 | 112.4342 |
| 29.03     | 35.31895 | 136.0774 | 115.4907 | 114.7784 | -0.7522114 | 120.1583 | 123.1825 | 122.7728 | 57.4 | 30   | 120.5583 | 11.4 | 67.3 | 102.7076 | 9.2 | 39.4 | 173.2222 | 42.7 | 107.6 | 126.1903 | 44.4 | 152.9 | 112.5332 |
| 29.033333 | 35.31895 | 136.0774 | 115.496  | 111.2796 | -0.7522815 | 119.3693 | 122.1304 | 121.2114 | 57.4 | 30   | 120.8497 | 11.4 | 67.3 | 111.7641 | 9.2 | 39.4 | 180.0257 | 42.7 | 107.6 | 121.7695 | 44.4 | 152.9 | 112.4077 |
| 29.036667 | 35.31895 | 136.0774 | 115.4896 | 111.2895 | -0.7523585 | 120.529  | 123.7507 | 122.6855 | 57.4 | 30   | 121.0785 | 11.4 | 67.3 | 119.2362 | 9.2 | 39.4 | 179.39   | 42.7 | 107.6 | 125.1655 | 44.4 | 152.9 | 11       |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 29.046667 | 35.31894 | 136.0774 | 115.4748 | 109.0273 | -0.7525909 | 121.4566 | 124.8807 | 123.3412 | 57.4 | 30   | 121.5568 | 11.4 | 67.3 | 128.1825 | 9.2 | 39.4 | 190.2784 | 42.7 | 107.7 | 126.0948 | 44.4 | 152.9 | 112.8235 |
| 29.05     | 35.31894 | 136.0774 | 115.4672 | 108.0881 | -0.7526712 | 120.928  | 124.1139 | 122.4542 | 57.4 | 30   | 121.4943 | 11.4 | 67.3 | 131.43   | 9.2 | 39.4 | 188.8724 | 42.7 | 107.7 | 123.9355 | 44.4 | 152.9 | 112.8956 |
| 29.053333 | 35.31894 | 136.0774 | 115.4664 | 105.4884 | -0.7527448 | 120.2504 | 123.139  | 121.178  | 57.4 | 30   | 121.3905 | 11.4 | 67.2 | 130.4499 | 9.2 | 39.4 | 201.6945 | 42.7 | 107.7 | 120.8501 | 44.4 | 152.9 | 112.9673 |
| 29.056667 | 35.31894 | 136.0774 | 115.4553 | 106.2656 | -0.752827  | 121.0303 | 124.1999 | 122.2516 | 57.4 | 30   | 121.4105 | 11.4 | 67.2 | 135.1841 | 9.2 | 39.4 | 196.5593 | 42.7 | 107.7 | 123.5496 | 44.4 | 152.9 | 113.0386 |
| 29.06     | 35.31894 | 136.0774 | 115.4504 | 109.6612 | -0.7529227 | 121.3966 | 124.7921 | 123.2874 | 57.4 | 30   | 121.3679 | 11.4 | 67.2 | 135.6984 | 9.2 | 39.4 | 176.9711 | 42.7 | 107.7 | 126.2497 | 44.4 | 152.9 | 112.8354 |
| 29.063333 | 35.31894 | 136.0774 | 115.4509 | 110.89   | -0.7530174 | 119.801  | 122.5456 | 121.3105 | 57.4 | 30   | 121.16   | 11.4 | 67.2 | 137.091  | 9.2 | 39.4 | 156.8271 | 42.7 | 107.7 | 121.5427 | 44.4 | 152.9 | 112.8811 |
| 29.066667 | 35.31895 | 136.0774 | 115.4575 | 112.7915 | -0.7531039 | 120.7387 | 123.8369 | 122.7985 | 57.4 | 30   | 121.0966 | 11.4 | 67.2 | 137.424  | 9.2 | 39.4 | 150.5874 | 42.7 | 107.7 | 125.4248 | 44.4 | 152.9 | 112.9272 |
| 29.07     | 35.31895 | 136.0774 | 115.4568 | 114.3753 | -0.7531953 | 120.2579 | 123.1872 | 122.4281 | 57.4 | 30   | 120.9706 | 11.4 | 67.2 | 134.5078 | 9.2 | 39.4 | 140.6183 | 42.7 | 107.7 | 124.6773 | 44.4 | 152.9 | 112.8722 |
| 29.073333 | 35.31895 | 136.0774 | 115.4667 | 114.1139 | -0.7532737 | 120.8261 | 123.9729 | 123.129  | 57.4 | 30   | 120.9269 | 11.4 | 67.2 | 135.9825 | 9.2 | 39.4 | 144.2332 | 42.7 | 107.7 | 126.5272 | 44.4 | 152.9 | 112.8919 |
| 29.076667 | 35.31895 | 136.0774 | 115.4817 | 114.8397 | -0.7533614 | 120.3198 | 123.1593 | 122.4288 | 57.4 | 30   | 121.0076 | 11.4 | 67.2 | 137.1938 | 9.2 | 39.4 | 135.1369 | 42.7 | 107.7 | 124.6219 | 44.4 | 152.9 | 113.1605 |
| 29.08     | 35.31895 | 136.0774 | 115.4958 | 116.3352 | -0.7534486 | 120.6833 | 123.6493 | 123.101  | 57.4 | 30   | 120.984  | 11.4 | 67.2 | 136.9979 | 9.2 | 39.4 | 128.3356 | 42.7 | 107.7 | 126.368  | 44.4 | 152.9 | 113.2052 |
| 29.083333 | 35.31895 | 136.0774 | 115.5063 | 115.4085 | -0.7535262 | 120.791  | 123.9999 | 123.3234 | 57.4 | 30   | 121.0024 | 11.4 | 67.2 | 137.7634 | 9.2 | 39.4 | 133.9183 | 42.7 | 107.7 | 126.9051 | 44.4 | 152.9 | 112.7005 |
| 29.086667 | 35.31895 | 136.0774 | 115.5167 | 115.0861 | -0.7536128 | 119.4714 | 122.2287 | 121.6264 | 57.4 | 30   | 120.9575 | 11.4 | 67.2 | 134.8391 | 9.2 | 39.4 | 130.514  | 42.7 | 107.7 | 122.6586 | 44.4 | 152.9 | 112.5196 |
| 29.09     | 35.31895 | 136.0774 | 115.5275 | 116.0326 | -0.7536983 | 119.6615 | 122.4275 | 121.9443 | 57.4 | 30   | 120.8507 | 11.4 | 67.2 | 134.5515 | 9.2 | 39.4 | 126.0046 | 42.7 | 107.7 | 123.632  | 44.4 | 152.9 | 112.6875 |
| 29.093333 | 35.31895 | 136.0774 | 115.5347 | 114.5181 | -0.7537747 | 119.4303 | 122.0978 | 121.4201 | 57.4 | 30   | 120.7227 | 11.4 | 67.2 | 135.3159 | 9.2 | 39.4 | 132.9044 | 42.7 | 107.7 | 122.4964 | 44.4 | 152.9 | 112.7045 |
| 29.096667 | 35.31895 | 136.0774 | 115.5305 | 115.5185 | -0.7538634 | 118.9845 | 121.4981 | 120.9916 | 57.4 | 30   | 120.636  | 11.4 | 67.2 | 135.3788 | 9.2 | 39.4 | 123.4607 | 42.7 | 107.7 | 121.5403 | 44.4 | 152.9 | 112.6469 |
| 29.1      | 35.31895 | 136.0774 | 115.5394 | 114.4916 | -0.7539426 | 118.6081 | 120.9653 | 120.3423 | 57.4 | 30   | 120.5693 | 11.4 | 67.2 | 135.6999 | 9.2 | 39.4 | 126.9553 | 42.7 | 107.7 | 119.9919 | 44.4 | 152.9 | 112.6646 |
| 29.103333 | 35.31895 | 136.0774 | 115.5441 | 117.0035 | -0.7540344 | 118.9556 | 121.4838 | 121.1923 | 57.4 | 30   | 120.523  | 11.4 | 67.2 | 134.9668 | 9.2 | 39.4 | 114.2144 | 42.7 | 107.7 | 122.2252 | 44.4 | 152.9 | 112.5813 |
| 29.106667 | 35.31895 | 136.0774 | 115.5417 | 115.3645 | -0.7541118 | 118.3868 | 120.6528 | 120.1762 | 57.4 | 30   | 120.3524 | 11.4 | 67.2 | 135.1998 | 9.2 | 39.4 | 120.2301 | 42.7 | 107.7 | 119.9042 | 44.4 | 152.9 | 112.6733 |
| 29.11     | 35.31895 | 136.0774 | 115.5413 | 116.8498 | -0.7541986 | 118.8285 | 121.2832 | 120.9935 | 57.4 | 30   | 120.2028 | 11.4 | 67.2 | 134.4669 | 9.2 | 39.4 | 114.3927 | 42.7 | 107.7 | 122.2136 | 44.4 | 152.9 | 112.6393 |
| 29.113333 | 35.31895 | 136.0774 | 115.5478 | 117.504  | -0.754282  | 119.2124 | 121.7747 | 121.5438 | 57.4 | 30   | 120.2798 | 11.4 | 67.2 | 133.9923 | 9.1 | 39.4 | 113.4923 | 42.7 | 107.7 | 123.4943 | 44.4 | 152.9 | 112.7549 |
| 29.116667 | 35.31895 | 136.0774 | 115.5572 | 117.7551 | -0.7543657 | 119.1162 | 121.753  | 121.5783 | 57.4 | 30   | 120.1915 | 11.4 | 67.2 | 133.3428 | 9.1 | 39.4 | 111.8228 | 42.7 | 107.7 | 123.7184 | 44.4 | 152.9 | 112.471  |
| 29.12     | 35.31895 | 136.0774 | 115.567  | 117.89   | -0.754449  | 118.9779 | 121.8009 | 121.6733 | 57.4 | 30   | 120.1854 | 11.4 | 67.2 | 132.8684 | 9.1 | 39.4 | 110.4817 | 42.7 | 107.7 | 123.9695 | 44.4 | 152.9 | 111.8633 |
| 29.123333 | 35.31895 | 136.0774 | 115.577  | 118.541  | -0.7545359 | 118.5767 | 121.4325 | 121.4415 | 57.4 | 30   | 120.1582 | 11.4 | 67.2 | 131.7782 | 9.1 | 39.4 | 104.8543 | 42.7 | 107.7 | 123.4218 | 44.4 | 152.9 | 111.3796 |
| 29.126667 | 35.31895 | 136.0774 | 115.579  | 118.4005 | -0.7546167 | 118.7335 | 121.7232 | 121.7102 | 57.4 | 30   | 120.2555 | 11.5 | 67.2 | 130.5988 | 9.1 | 39.4 | 108.2281 | 42.7 | 107.7 | 123.9552 | 44.4 | 152.9 | 111.1946 |
| 29.13     | 35.31895 | 136.0774 | 115.5858 | 118.132  | -0.7546993 | 118.3598 | 121.2154 | 121.205  | 57.4 | 30   | 120.1452 | 11.5 | 67.2 | 129.5039 | 9.1 | 39.4 | 108.5272 | 42.7 | 107.7 | 122.8406 | 44.4 | 152.9 | 111.1594 |
| 29.133333 | 35.31895 | 136.0774 | 115.5878 | 118.2074 | -0.7547821 | 118.2837 | 121.084  | 121.0937 | 57.4 | 30   | 120.2003 | 11.5 | 67.2 | 128.5841 | 9.1 | 39.4 | 108.7148 | 42.7 | 107.7 | 122.4724 | 44.4 | 152.9 | 111.2223 |
| 29.136667 | 35.31895 | 136.0774 | 115.5856 | 118.2892 | -0.7548635 | 118.5372 | 121.4523 | 121.4729 | 57.4 | 30   | 120.1305 | 11.5 | 67.2 | 127.225  | 9.1 | 39.4 | 111.3181 | 42.7 | 107.7 | 123.5445 | 44.4 | 152.9 | 111.1863 |
| 29.14     | 35.31895 | 136.0774 | 115.5795 | 118.196  | -0.754945  | 118.5772 | 121.4969 | 121.5022 | 57.3 | 30   | 120.1649 | 11.5 | 67.2 | 127.0081 | 9.1 | 39.4 | 112.4915 | 42.7 | 107.7 | 123.5613 | 44.4 | 152.9 | 111.2243 |
| 29.143333 | 35.31895 | 136.0774 | 115.5774 | 117.814  | -0.7550255 | 118.5673 | 121.4979 | 121.4557 | 57.3 | 30   | 120.1776 | 11.5 | 67.2 | 126.6995 | 9.1 | 39.4 | 115.2031 | 42.7 | 107.7 | 123.4236 | 44.4 | 152.9 | 111.187  |
| 29.146667 | 35.31895 | 136.0774 | 115.5692 | 117.8844 | -0.7551072 | 118.7341 | 121.6764 | 121.6314 | 57.3 | 30   | 120.2732 | 11.5 | 67.2 | 126.1277 | 9.1 | 39.4 | 116.705  | 42.7 | 107.7 | 123.7227 | 44.4 | 152.9 | 111.3242 |
| 29.15     | 35.31895 | 136.0774 | 115.5485 | 117.9908 | -0.7551895 | 118.8093 | 121.5987 | 121.5538 | 57.3 | 30   | 120.2853 | 11.5 | 67.2 | 125.8167 | 9.1 | 39.4 | 116.9965 | 42.7 | 107.7 | 123.5069 | 44.4 | 152.9 | 111.7846 |
| 29.153333 | 35.31895 | 136.0774 | 115.5458 | 117.1696 | -0.7552694 | 118.4783 | 121.0225 | 120.8859 | 57.3 | 30   | 120.277  | 11.5 | 67.2 | 125.2426 | 9.1 | 39.4 | 120.6944 | 42.7 | 107.7 | 121.8234 | 44.4 | 152.9 | 112.0712 |
| 29.156667 | 35.31895 | 136.0774 | 115.5461 | 117.2367 | -0.755353  | 118.2258 | 120.6656 | 120.5572 | 57.3 | 30.1 | 120.3094 | 11.5 | 67.2 | 124.7555 | 9.1 | 39.4 | 119.2259 | 42.7 | 107.7 | 120.9388 | 44.4 | 152.9 | 112.0817 |
| 29.16     | 35.31895 | 136.0774 | 115.5471 | 117.7552 | -0.7554368 | 118.3689 | 120.8609 | 120.8096 | 57.3 | 30.1 | 120.4657 | 11.5 | 67.2 | 124.5316 | 9.1 | 39.4 | 117.4217 | 42.7 | 107.7 | 121.3391 | 44.4 | 152.9 | 112.0934 |
| 29.163333 | 35.31895 | 136.0774 | 115.547  | 117.3014 | -0.7555163 | 118.5127 | 121.0774 | 120.9586 | 57.3 | 30.1 | 120.5183 | 11.5 | 67.2 | 124.1278 | 9.1 | 39.4 | 121.7782 | 42.7 | 107.7 | 121.6365 | 44.4 | 152.9 | 112.0541 |
| 29.166667 | 35.31895 | 136.0774 | 115.5365 | 119.0215 | -0.7555948 | 121.0736 | 121.0736 | 120.7927 | 57.3 | 30.1 | 120.6532 | 11.5 | 67.2 | 123.7253 | 9.1 | 39.4 | 129.9787 | 42.7 | 107.7 | 121.0074 | #N/A | #N/A  | #N/A     |
| 29.17     | 35.31895 | 136.0774 | 115.5309 | 118.262  | -0.7556732 | 121.1621 | 121.1621 | 120.7721 | 57.3 | 30.1 | 120.6435 | 11.5 | 67.2 | 123.8479 | 9.1 | 39.4 | 135.104  | 42.7 | 107.7 | 120.9701 | #N/A | #N/A  | #N/A     |
| 29.173333 | 35.31895 | 136.0774 | 115.532  | 117.3758 | -0.7557521 | 120.9943 | 120.9943 | 120.5048 | 57.3 | 30.1 | 120.6122 | 11.5 | 67.2 | 123.6194 | 9.1 | 39.4 | 139.6776 | 42.7 | 107.7 | 120.3395 | #N/A | #N/A  | #N/A     |
| 29.176667 | 35.31895 | 136.0774 | 115.5315 | 116.7952 | -0.7558307 | 121.2255 | 121.2255 | 120.6342 | 57.3 | 30.1 | 120.8508 | 11.5 | 67.2 | 123.2109 | 9.1 | 39.4 | 145.6821 | 42.7 | 107.7 | 120.3007 | #N/A | #N/A  | #N/A     |
| 29.18     | 35.31895 | 136.0774 | 115.5333 | 116.3691 | -0.7559097 | 121.5007 | 121.5007 | 120.835  | 57.3 | 30.1 | 120.9228 | 11.5 | 67.2 | 122.275  | 9.1 | 39.4 | 151.3556 | 42.7 | 107.7 | 120.6997 | #N/A | #N/A  | #N/A     |
| 29.183333 | 35.31895 | 136.0774 | 115.5312 | 112.8124 | -0.7559731 | 122.2141 | 122.2141 | 121.0201 | 57.3 | 30.1 | 120.8692 | 11.5 | 67.2 | 121.9548 | 9.1 | 39.4 | 178.3791 | 42.7 | 107.7 | 121.2524 | #N/A | #N/A  | #N/A     |
| 29.186667 | 35.31895 | 136.0774 | 115.5266 | 111.1073 | -0.7560468 | 122.4347 | 122.4347 | 121.0054 | 57.3 | 30.1 | 120.8373 | 11.5 | 67.2 | 121.0166 | 9.1 | 39.4 | 191.4285 | 42.7 | 107.7 | 121.2643 | #N/A | #N/A  | #N/A     |
| 29.19     | 35.31895 | 136.0774 | 115.5158 | 112.2285 | -0.7561348 | 122.2162 | 122.2162 | 120.9546 | 57.3 | 30.1 | 120.8462 | 11.5 | 67.2 | 120.956  | 9.1 | 39.4 | 183.1305 | 42.7 | 107.7 | 121.1216 | #N/A | #N/A  | #N/A     |
| 29.193333 | 35.31895 | 136.0774 | 115.521  | 113.0013 | -0.7562214 | 121.9573 | 121.9573 | 120.8229 | 57.3 | 30.1 | 120.7716 | 11.5 | 67.2 | 120.9847 | 9.1 | 39.4 | 176.4723 | 42.7 | 107.7 | 120.9019 | #N/A | #N/A  | #N/A     |
| 29.196667 | 35.31895 | 136.0774 | 115.5171 | 113.816  | -0.7563076 |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |      |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|------|----------|
| 29.203333 | 35.31895 | 136.0774 | 115.5016 | 117.4765 | -0.7564911 | 121.1104 | 121.1104 | 120.6523 | 57.3 | 30.1 | 120.8377 | 11.5 | 67.2 | 119.6517 | 9.1 | 39.4 | 144.8181 | 42.7 | 107.7 | 120.3668 | #N/A | #N/A | #N/A     |
| 29.206667 | 35.31895 | 136.0774 | 115.5033 | 117.2038 | -0.7565729 | 120.9029 | 120.9029 | 120.4343 | 57.3 | 30.1 | 120.5552 | 11.5 | 67.2 | 119.9376 | 9.1 | 39.4 | 144.3187 | 42.7 | 107.7 | 120.2482 | #N/A | #N/A | #N/A     |
| 29.21     | 35.31895 | 136.0774 | 115.5002 | 120.0935 | -0.7566698 | 120.4237 | 120.4237 | 120.3841 | 57.3 | 30.1 | 120.5832 | 11.5 | 67.2 | 119.3437 | 9.1 | 39.4 | 123.9855 | 42.7 | 107.7 | 120.0776 | #N/A | #N/A | #N/A     |
| 29.213333 | 35.31895 | 136.0774 | 115.4897 | 120.2359 | -0.7567535 | 120.1944 | 120.1944 | 120.2006 | 57.3 | 30.1 | 120.3417 | 11.5 | 67.2 | 119.5391 | 9.1 | 39.4 | 120.9452 | 42.7 | 107.7 | 119.9833 | #N/A | #N/A | #N/A     |
| 29.216667 | 35.31895 | 136.0774 | 115.4983 | 122.7451 | -0.7568484 | 119.7916 | 119.7916 | 120.168  | 57.3 | 30.1 | 120.2651 | 11.5 | 67.2 | 119.5571 | 9.1 | 39.4 | 102.5866 | 42.7 | 107.7 | 120.0186 | #N/A | #N/A | #N/A     |
| 29.22     | 35.31895 | 136.0774 | 115.4912 | 121.5355 | -0.7569252 | 119.7856 | 119.7856 | 120.0141 | 57.3 | 30.1 | 120.0225 | 11.5 | 67.2 | 119.224  | 9.1 | 39.4 | 110.0076 | 42.7 | 107.7 | 120.0011 | #N/A | #N/A | #N/A     |
| 29.223333 | 35.31895 | 136.0774 | 115.4788 | 122.1276 | -0.7570107 | 119.6042 | 119.6042 | 119.9329 | 57.3 | 30.1 | 119.9668 | 11.5 | 67.2 | 118.8017 | 9.1 | 39.4 | 105.5292 | 42.7 | 107.7 | 119.8807 | #N/A | #N/A | #N/A     |
| 29.226667 | 35.31895 | 136.0774 | 115.4703 | 121.0162 | -0.7570875 | 119.705  | 119.705  | 119.8812 | 57.3 | 30.1 | 119.9101 | 11.5 | 67.2 | 118.64   | 9.1 | 39.4 | 113.1706 | 42.7 | 107.7 | 119.8367 | #N/A | #N/A | #N/A     |
| 29.23     | 35.31895 | 136.0774 | 115.4608 | 121.2672 | -0.757171  | 119.6244 | 119.6244 | 119.8451 | 57.3 | 30.1 | 119.8122 | 11.5 | 67.2 | 118.5652 | 9.1 | 39.4 | 111.0009 | 42.7 | 107.7 | 119.8957 | #N/A | #N/A | #N/A     |
| 29.233333 | 35.31895 | 136.0774 | 115.4414 | 121.6673 | -0.7572553 | 119.5326 | 119.5326 | 119.8156 | 57.3 | 30.1 | 119.7758 | 11.5 | 67.2 | 118.5773 | 9.1 | 39.4 | 107.837  | 42.7 | 107.7 | 119.8768 | #N/A | #N/A | #N/A     |
| 29.236667 | 35.31895 | 136.0774 | 115.4352 | 122.4043 | -0.7573318 | 121.5498 | 119.8619 | 119.9529 | 57.3 | 30.1 | 119.8639 | 11.5 | 67.2 | 118.7669 | 9.1 | 39.4 | 117.351  | 42.7 | 107.7 | 120.09   | 44.5 | 153  | 125.7855 |
| 29.24     | 35.31895 | 136.0774 | 115.4175 | 120.7185 | -0.7574126 | 120.1653 | 119.7812 | 119.8548 | 57.3 | 30.1 | 119.7651 | 11.5 | 67.2 | 119.1264 | 9.1 | 39.4 | 117.3855 | 42.7 | 107.7 | 119.9929 | 44.5 | 153  | 121.1291 |
| 29.243333 | 35.31895 | 136.0774 | 115.4081 | 119.4598 | -0.7574901 | 119.9336 | 119.9327 | 119.8777 | 57.3 | 30.1 | 119.7487 | 11.5 | 67.2 | 119.6634 | 9.1 | 39.4 | 122.9306 | 42.7 | 107.7 | 120.0763 | 44.5 | 153  | 119.9358 |
| 29.246667 | 35.31895 | 136.0774 | 115.4008 | 117.6717 | -0.7575675 | 119.1989 | 119.9966 | 119.8171 | 57.3 | 30.1 | 119.7118 | 11.5 | 67.2 | 119.9324 | 9.1 | 39.4 | 128.4788 | 42.7 | 107.7 | 119.9793 | 44.5 | 153  | 117.1971 |
| 29.25     | 35.31895 | 136.0774 | 115.4    | 114.0011 | -0.7576435 | 116.8824 | 120.1816 | 119.8744 | 57.3 | 30.1 | 119.7363 | 11.5 | 67.2 | 120.2909 | 9.1 | 39.4 | 134.3526 | 42.7 | 107.7 | 120.0871 | 44.5 | 153  | 108.6033 |
| 29.253333 | 35.31895 | 136.0774 | 115.3927 | 115.1864 | -0.7577282 | 117.4877 | 120.1536 | 119.9094 | 57.3 | 30.1 | 119.6567 | 11.5 | 67.2 | 120.7362 | 9.1 | 39.4 | 130.6302 | 42.7 | 107.7 | 120.2986 | 44.5 | 153  | 110.798  |
| 29.256667 | 35.31895 | 136.0774 | 115.3867 | 116.7274 | -0.7578161 | 117.7195 | 119.9811 | 119.9014 | 57.3 | 30.1 | 119.4733 | 11.5 | 67.2 | 121.0922 | 9.1 | 39.4 | 121.9374 | 42.7 | 107.7 | 120.5606 | 44.5 | 153  | 112.0443 |
| 29.26     | 35.31895 | 136.0774 | 115.3815 | 115.9496 | -0.7578926 | 118.1973 | 120.1821 | 119.9251 | 57.3 | 30.1 | 119.4762 | 11.5 | 67.2 | 122.2371 | 9.1 | 39.4 | 128.9151 | 42.7 | 107.8 | 120.6164 | 44.5 | 153  | 113.2167 |
| 29.263333 | 35.31895 | 136.0774 | 115.3778 | 115.7346 | -0.7579716 | 118.6628 | 120.3264 | 119.9746 | 57.3 | 30.1 | 119.4379 | 11.5 | 67.2 | 122.6763 | 9.1 | 39.4 | 133.0211 | 42.7 | 107.8 | 120.801  | 44.5 | 153  | 114.488  |
| 29.266667 | 35.31895 | 136.0774 | 115.3675 | 114.5943 | -0.7580462 | 119.1979 | 120.469  | 119.8867 | 57.3 | 30.1 | 119.3577 | 11.5 | 67.2 | 123.2048 | 9.1 | 39.4 | 143.3146 | 42.7 | 107.8 | 120.7012 | 44.5 | 153  | 116.0081 |
| 29.27     | 35.31895 | 136.0774 | 115.3595 | 112.7544 | -0.758122  | 118.7674 | 120.5621 | 119.8034 | 57.3 | 30.1 | 119.235  | 11.5 | 67.2 | 123.7296 | 9.1 | 39.4 | 150.9547 | 42.7 | 107.8 | 120.6786 | 44.5 | 153  | 114.2639 |
| 29.273333 | 35.31895 | 136.0774 | 115.3549 | 110.7152 | -0.7581994 | 117.7948 | 120.6516 | 119.7702 | 57.3 | 30.1 | 119.1952 | 11.5 | 67.2 | 124.3438 | 9.1 | 39.4 | 155.9436 | 42.7 | 107.8 | 120.6555 | 44.5 | 153  | 110.6261 |
| 29.276667 | 35.31895 | 136.0774 | 115.3472 | 108.7958 | -0.7582748 | 117.3515 | 120.7963 | 119.7349 | 57.3 | 30.1 | 119.135  | 11.5 | 67.2 | 124.4309 | 9.1 | 39.4 | 164.5813 | 42.7 | 107.8 | 120.6587 | 44.5 | 153  | 108.7071 |
| 29.28     | 35.31895 | 136.0774 | 115.3413 | 108.3787 | -0.7583526 | 117.894  | 120.7811 | 119.5797 | 57.3 | 30.1 | 119.0952 | 11.5 | 67.2 | 124.3357 | 9.1 | 39.4 | 171.2289 | 42.7 | 107.8 | 120.3258 | 44.5 | 153  | 110.6491 |
| 29.283333 | 35.31895 | 136.0774 | 115.3402 | 108.5234 | -0.7584332 | 118.3723 | 120.8347 | 119.5732 | 57.3 | 30.1 | 119.2002 | 11.5 | 67.2 | 124.8582 | 9.1 | 39.4 | 173.3499 | 42.7 | 107.8 | 120.1475 | 44.5 | 153  | 112.1932 |
| 29.286667 | 35.31895 | 136.0774 | 115.3365 | 109.4218 | -0.7585179 | 118.6777 | 120.806  | 119.6088 | 57.3 | 30.1 | 119.3251 | 11.5 | 67.2 | 125.2034 | 9.1 | 39.4 | 169.7205 | 42.7 | 107.8 | 120.0456 | 44.5 | 153  | 113.3372 |
| 29.29     | 35.31895 | 136.0774 | 115.3365 | 109.1912 | -0.7585992 | 118.6253 | 120.6836 | 119.4534 | 57.3 | 30.1 | 119.2013 | 11.5 | 67.2 | 125.8971 | 9.1 | 39.4 | 169.8472 | 42.7 | 107.8 | 119.8415 | 44.5 | 153  | 113.46   |
| 29.293333 | 35.31895 | 136.0774 | 115.3337 | 109.4238 | -0.7586801 | 119.1264 | 120.842  | 119.5669 | 57.3 | 30.1 | 119.2222 | 11.5 | 67.1 | 126.504  | 9.1 | 39.4 | 171.2962 | 42.6 | 107.8 | 120.0997 | 44.5 | 153  | 114.8274 |
| 29.296667 | 35.31894 | 136.0774 | 115.3359 | 109.8797 | -0.7587645 | 119.0475 | 120.8321 | 119.6302 | 57.3 | 30.1 | 119.3261 | 11.5 | 67.1 | 126.1413 | 9.1 | 39.4 | 168.4398 | 42.6 | 107.8 | 120.1001 | 44.5 | 153  | 114.5754 |
| 29.3      | 35.31894 | 136.0774 | 115.3459 | 111.3254 | -0.7588517 | 119.3467 | 120.8343 | 119.7737 | 57.3 | 30.1 | 119.5123 | 11.5 | 67.1 | 126.3056 | 9.1 | 39.4 | 161.5962 | 42.6 | 107.8 | 120.1776 | 44.5 | 153  | 115.6188 |
| 29.303333 | 35.31894 | 136.0774 | 115.3448 | 111.8193 | -0.7589362 | 119.3022 | 120.6937 | 119.6922 | 57.3 | 30.1 | 119.5116 | 11.5 | 67.1 | 126.9089 | 9.1 | 39.4 | 157.515  | 42.6 | 107.8 | 119.9713 | 44.5 | 153  | 115.8151 |
| 29.306667 | 35.31894 | 136.0774 | 115.3333 | 112.7712 | -0.7590222 | 119.3569 | 120.4636 | 119.5704 | 57.3 | 30.1 | 119.3448 | 11.5 | 67.1 | 127.2469 | 9.1 | 39.4 | 151.3305 | 42.6 | 107.8 | 119.919  | 44.5 | 153  | 116.5837 |
| 29.31     | 35.31894 | 136.0774 | 115.3276 | 113.4543 | -0.7591094 | 118.8842 | 120.1418 | 119.3903 | 57.3 | 30.1 | 119.1153 | 11.5 | 67.1 | 128.547  | 9.1 | 39.4 | 141.8218 | 42.6 | 107.8 | 119.8154 | 44.5 | 153  | 115.7329 |
| 29.313333 | 35.31894 | 136.0774 | 115.3138 | 113.6567 | -0.7591941 | 118.4944 | 119.8071 | 119.1269 | 57.3 | 30.1 | 118.7822 | 11.5 | 67.1 | 129.3203 | 9.1 | 39.4 | 136.404  | 42.6 | 107.8 | 119.6597 | 44.5 | 153  | 115.2051 |
| 29.316667 | 35.31894 | 136.0774 | 115.2933 | 113.6687 | -0.7592777 | 118.16   | 119.56   | 118.9181 | 57.3 | 30.1 | 118.6562 | 11.5 | 67.1 | 129.7427 | 9.1 | 39.4 | 133.3067 | 42.6 | 107.8 | 119.3229 | 44.5 | 153  | 114.652  |
| 29.32     | 35.31894 | 136.0774 | 115.276  | 113.9966 | -0.7593615 | 118.0964 | 119.3536 | 118.7626 | 57.3 | 30.1 | 118.3842 | 11.5 | 67.1 | 129.7262 | 9.1 | 39.4 | 130.429  | 42.6 | 107.8 | 119.3474 | 44.5 | 153  | 114.9459 |
| 29.323333 | 35.31894 | 136.0774 | 115.2695 | 114.105  | -0.7594447 | 117.9504 | 119.2507 | 118.6897 | 57.3 | 30.1 | 118.2992 | 11.5 | 67.1 | 130.1437 | 9.1 | 39.4 | 128.1007 | 42.6 | 107.8 | 119.2932 | 44.5 | 153  | 114.692  |
| 29.326667 | 35.31894 | 136.0774 | 115.2629 | 114.4787 | -0.759529  | 117.8282 | 119.2909 | 118.8005 | 57.3 | 30.1 | 118.4    | 11.5 | 67.1 | 129.9488 | 9.1 | 39.4 | 125.2186 | 42.6 | 107.8 | 119.4196 | 44.5 | 153  | 114.1629 |
| 29.33     | 35.31894 | 136.0774 | 115.2514 | 114.941  | -0.7596131 | 117.8149 | 119.1059 | 118.6769 | 57.3 | 30.1 | 118.2318 | 11.5 | 67.1 | 129.6622 | 9.1 | 39.4 | 122.3342 | 42.6 | 107.8 | 119.3648 | 44.5 | 153  | 114.58   |
| 29.333333 | 35.31894 | 136.0774 | 115.2469 | 115.3272 | -0.7596964 | 117.925  | 119.0237 | 118.6255 | 57.3 | 30.1 | 118.1662 | 11.5 | 67.1 | 129.8146 | 9.1 | 39.4 | 120.4435 | 42.6 | 107.8 | 119.3355 | 44.5 | 153  | 115.1716 |
| 29.336667 | 35.31894 | 136.0774 | 115.2343 | 115.0368 | -0.7597788 | 117.5609 | 118.865  | 118.4785 | 57.3 | 30.1 | 117.9766 | 11.5 | 67.1 | 130.0538 | 9.1 | 39.4 | 119.106  | 42.6 | 107.8 | 119.2542 | 44.5 | 153  | 114.2932 |
| 29.34     | 35.31894 | 136.0774 | 115.2347 | 114.7775 | -0.759862  | 117.0464 | 118.536  | 118.195  | 57.3 | 30.1 | 117.5788 | 11.5 | 67.1 | 129.2381 | 9.1 | 39.4 | 117.4303 | 42.6 | 107.8 | 119.1474 | 44.5 | 153  | 113.3138 |
| 29.343333 | 35.31894 | 136.0774 | 115.2146 | 114.4612 | -0.7599437 | 116.8011 | 118.3345 | 117.981  | 57.3 | 30.1 | 117.3459 | 11.5 | 67.1 | 129.5629 | 9.1 | 39.4 | 116.9712 | 42.6 | 107.8 | 118.9627 | 44.5 | 153  | 112.9586 |
| 29.346667 | 35.31894 | 136.0774 | 115.2089 | 114.4357 | -0.7600257 | 116.7737 | 118.2299 | 117.8707 | 57.3 | 30.1 | 117.3005 | 11.5 | 67.1 | 129.7105 | 9.1 | 39.4 | 116.7358 | 42.6 | 107.8 | 118.7519 | 44.5 | 153  | 113.1249 |
| 29.35     | 35.31894 | 136.0774 | 115.2081 | 114.3492 | -0.7601079 | 116.6693 | 118.1067 | 117.7497 | 57.3 | 30.1 | 117.1711 | 11.5 | 67.1 | 129.5929 | 9.1 | 39.4 | 116.4988 | 42.6 | 107.8 | 118.644  | 44.5 | 153  | 113.0674 |
| 29.353333 | 35.31894 | 136.0774 | 115.1926 | 114.048  | -0.7601898 | 116.4001 | 117      |          |      |      |          |      |      |          |     |      |          |      |       |          |      |      |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 29.36     | 35.31894 | 136.0774 | 115.2001 | 114.0016 | -0.7603534 | 116.4427 | 118.029  | 117.6683 | 57.3 | 30.2 | 117.0318 | 11.5 | 67.1 | 128.7074 | 9.1 | 39.4 | 117.8774 | 42.6 | 107.8 | 118.6521 | 44.5 | 153   | 112.4677 |
| 29.363333 | 35.31894 | 136.0774 | 115.1947 | 113.7772 | -0.7604347 | 116.3888 | 117.9873 | 117.604  | 57.3 | 30.2 | 117.0468 | 11.5 | 67.1 | 128.4116 | 9.1 | 39.4 | 119.2953 | 42.6 | 107.8 | 118.4653 | 44.5 | 153   | 112.3832 |
| 29.366667 | 35.31894 | 136.0774 | 115.2005 | 113.5149 | -0.7605155 | 116.3939 | 118.0181 | 117.6001 | 57.3 | 30.2 | 117.0616 | 11.5 | 67.1 | 128.3787 | 9.1 | 39.4 | 121.0425 | 42.6 | 107.8 | 118.4325 | 44.5 | 153   | 112.324  |
| 29.37     | 35.31894 | 136.0774 | 115.1998 | 113.2371 | -0.7605961 | 116.4369 | 118.0325 | 117.5731 | 57.3 | 30.2 | 117.0553 | 11.5 | 67.1 | 128.166  | 9.1 | 39.4 | 123.3476 | 42.6 | 107.8 | 118.3735 | 44.5 | 153   | 112.4387 |
| 29.373333 | 35.31894 | 136.0774 | 115.2018 | 114.9055 | -0.7606786 | 118.0594 | 118.0594 | 117.584  | 57.3 | 30.2 | 117.1111 | 11.5 | 67.1 | 127.8642 | 9.1 | 39.4 | 124.648  | 42.6 | 107.8 | 118.3149 | #N/A | #N/A  | #N/A     |
| 29.376667 | 35.31894 | 136.0774 | 115.2047 | 114.8211 | -0.7607598 | 118.1599 | 118.1599 | 117.6628 | 57.3 | 30.2 | 117.229  | 11.5 | 67.1 | 127.5612 | 9.1 | 39.4 | 126.3952 | 42.6 | 107.8 | 118.3334 | #N/A | #N/A  | #N/A     |
| 29.38     | 35.31894 | 136.0774 | 115.2105 | 114.5724 | -0.7608406 | 118.2061 | 118.2061 | 117.6754 | 57.3 | 30.2 | 117.1386 | 11.5 | 67.1 | 127.5235 | 9.1 | 39.4 | 128.1414 | 42.6 | 107.8 | 118.5052 | #N/A | #N/A  | #N/A     |
| 29.383333 | 35.31894 | 136.0774 | 115.1947 | 114.0623 | -0.7609207 | 118.1246 | 118.1246 | 117.5343 | 57.3 | 30.2 | 117.0284 | 11.5 | 67.1 | 127.8341 | 9.1 | 39.4 | 130.2171 | 42.6 | 107.8 | 118.3163 | #N/A | #N/A  | #N/A     |
| 29.386667 | 35.31894 | 136.0774 | 115.1959 | 118.4747 | -0.7610038 | 122.2207 | 118.1144 | 117.4728 | 57.3 | 30.2 | 116.9166 | 11.5 | 67.1 | 127.8795 | 9.1 | 39.4 | 132.5144 | 42.6 | 107.8 | 118.3324 | 44.5 | 153   | 132.5104 |
| 29.39     | 35.31894 | 136.0774 | 115.1994 | 117.5526 | -0.7610843 | 121.6341 | 118.2118 | 117.5452 | 57.3 | 30.2 | 116.9918 | 11.5 | 67.1 | 128.0972 | 9   | 39.4 | 133.9238 | 42.6 | 107.8 | 118.4005 | 44.5 | 153   | 130.2062 |
| 29.393333 | 35.31894 | 136.0774 | 115.1971 | 115.7963 | -0.7611648 | 120.2216 | 118.3385 | 117.6677 | 57.3 | 30.2 | 117.0662 | 11.5 | 67.1 | 127.3534 | 9   | 39.4 | 135.6627 | 42.6 | 107.8 | 118.5975 | 44.5 | 153   | 124.9382 |
| 29.396667 | 35.31894 | 136.0774 | 115.2022 | 115.1881 | -0.7612464 | 119.7204 | 118.289  | 117.6189 | 57.3 | 30.2 | 116.975  | 11.5 | 67.1 | 126.8674 | 9   | 39.4 | 136.2941 | 42.6 | 107.8 | 118.614  | 44.5 | 153   | 123.3058 |
| 29.4      | 35.31894 | 136.0774 | 115.2054 | 114.3829 | -0.7613275 | 119.1212 | 118.4304 | 117.7452 | 57.3 | 30.2 | 117.1736 | 11.5 | 67.1 | 127.0841 | 9   | 39.4 | 137.0322 | 42.6 | 107.8 | 118.6287 | 44.5 | 153   | 120.8515 |
| 29.403333 | 35.31894 | 136.0774 | 115.2099 | 112.5529 | -0.7614087 | 117.4721 | 118.6145 | 117.9375 | 57.3 | 30.2 | 117.4968 | 11.5 | 67.1 | 127.2996 | 9   | 39.4 | 136.7734 | 42.6 | 107.8 | 118.6186 | 44.5 | 153   | 114.6106 |
| 29.406667 | 35.31894 | 136.0774 | 115.1996 | 112.1659 | -0.7614904 | 117.1411 | 118.7137 | 118.0304 | 57.3 | 30.2 | 117.7573 | 11.5 | 67.1 | 127.6018 | 9   | 39.4 | 136.844  | 42.6 | 107.8 | 118.4524 | 44.5 | 153   | 113.2021 |
| 29.41     | 35.31894 | 136.0774 | 115.1946 | 109.7409 | -0.7615709 | 115.0511 | 118.8183 | 118.1308 | 57.3 | 30.2 | 117.9135 | 11.5 | 67.1 | 127.9883 | 9   | 39.4 | 136.6903 | 42.6 | 107.8 | 118.4667 | 44.5 | 153   | 105.6152 |
| 29.413333 | 35.31894 | 136.0774 | 115.2015 | 109.6629 | -0.7616528 | 115.0022 | 118.9494 | 118.2515 | 57.2 | 30.2 | 118.1526 | 11.5 | 67.1 | 128.6401 | 9   | 39.4 | 136.4269 | 42.6 | 107.8 | 118.4039 | 44.5 | 153   | 105.1282 |
| 29.416667 | 35.31894 | 136.0774 | 115.1801 | 110.2936 | -0.7617355 | 115.4786 | 119.1243 | 118.4424 | 57.2 | 30.2 | 118.3915 | 11.5 | 67.1 | 128.4109 | 9   | 39.4 | 136.493  | 42.6 | 107.8 | 118.521  | 44.5 | 153   | 106.3588 |
| 29.42     | 35.31894 | 136.0774 | 115.1791 | 111.1519 | -0.7618192 | 115.9501 | 119.103  | 118.4584 | 57.2 | 30.2 | 118.526  | 11.5 | 67.1 | 128.2711 | 9   | 39.4 | 134.8929 | 42.6 | 107.8 | 118.3541 | 44.5 | 153   | 108.0629 |
| 29.423333 | 35.31894 | 136.0774 | 115.1646 | 111.8469 | -0.7619028 | 116.2996 | 119.1206 | 118.5095 | 57.2 | 30.2 | 118.7025 | 11.5 | 67.1 | 128.3034 | 9   | 39.4 | 133.2877 | 42.6 | 107.8 | 118.2119 | 44.5 | 153   | 109.2428 |
| 29.426667 | 35.31894 | 136.0774 | 115.1531 | 112.2308 | -0.7619856 | 116.4985 | 119.1666 | 118.5702 | 57.2 | 30.2 | 118.8781 | 11.5 | 67.1 | 128.596  | 9   | 39.4 | 132.2378 | 42.6 | 107.8 | 118.0953 | 44.5 | 153   | 109.8242 |
| 29.43     | 35.31894 | 136.0774 | 115.1479 | 113.0449 | -0.7620693 | 116.9433 | 119.1084 | 118.5485 | 57.2 | 30.2 | 118.8674 | 11.5 | 67.1 | 128.626  | 9   | 39.4 | 130.2977 | 42.6 | 107.8 | 118.0566 | 44.5 | 153   | 111.5273 |
| 29.433333 | 35.31894 | 136.0774 | 115.1549 | 113.181  | -0.7621517 | 116.991  | 119.1319 | 118.5787 | 57.2 | 30.2 | 118.876  | 11.5 | 67.1 | 129.1851 | 9   | 39.4 | 129.1326 | 42.6 | 107.8 | 118.1202 | 44.5 | 153   | 111.6356 |
| 29.436667 | 35.31894 | 136.0774 | 115.1426 | 113.8126 | -0.762235  | 117.3195 | 119.0609 | 118.541  | 57.2 | 30.2 | 118.8231 | 11.5 | 67.1 | 128.9489 | 9   | 39.4 | 127.746  | 42.6 | 107.8 | 118.1059 | 44.5 | 153   | 112.9632 |
| 29.44     | 35.31894 | 136.0774 | 115.1382 | 113.85   | -0.762318  | 117.1241 | 118.9735 | 118.4878 | 57.2 | 30.2 | 118.7282 | 11.5 | 67.1 | 128.7994 | 9   | 39.4 | 126.1313 | 42.6 | 107.8 | 118.1171 | 44.5 | 153   | 112.4978 |
| 29.443333 | 35.31894 | 136.0774 | 115.1351 | 113.5144 | -0.7624    | 116.7956 | 118.919  | 118.434  | 57.2 | 30.2 | 118.7158 | 11.5 | 67.1 | 129.0006 | 9   | 39.4 | 125.6265 | 42.6 | 107.8 | 117.9995 | 44.5 | 153   | 111.4839 |
| 29.446667 | 35.31894 | 136.0774 | 115.1357 | 113.872  | -0.7624829 | 116.9499 | 118.9131 | 118.4529 | 57.2 | 30.2 | 118.7238 | 11.5 | 67.1 | 128.8488 | 9   | 39.4 | 124.6772 | 42.6 | 107.8 | 118.0351 | 44.5 | 153   | 112.039  |
| 29.45     | 35.31894 | 136.0774 | 115.1049 | 113.8333 | -0.7625651 | 116.8722 | 118.7716 | 118.3097 | 57.2 | 30.2 | 118.6484 | 11.5 | 67.1 | 129.0476 | 9   | 39.4 | 124.0639 | 42.6 | 107.8 | 117.7875 | 44.5 | 153   | 112.1207 |
| 29.453333 | 35.31894 | 136.0774 | 115.0988 | 114.255  | -0.7626478 | 117.1346 | 118.8078 | 118.3609 | 57.2 | 30.2 | 118.7594 | 11.5 | 67.1 | 128.9814 | 9   | 39.4 | 123.5542 | 42.6 | 107.8 | 117.7463 | 44.5 | 153.1 | 112.9492 |
| 29.456667 | 35.31894 | 136.0774 | 115.0939 | 114.6665 | -0.7627304 | 117.3946 | 118.8207 | 118.3864 | 57.2 | 30.2 | 118.9123 | 11.5 | 67.1 | 128.7381 | 9   | 39.4 | 123.3807 | 42.6 | 107.8 | 117.5755 | 44.5 | 153.1 | 113.8273 |
| 29.46     | 35.31894 | 136.0774 | 115.0965 | 114.7659 | -0.7628129 | 117.394  | 118.8774 | 118.4574 | 57.2 | 30.2 | 118.94   | 11.5 | 67.1 | 128.9334 | 9   | 39.4 | 122.533  | 42.6 | 107.8 | 117.7132 | 44.5 | 153.1 | 113.6831 |
| 29.463333 | 35.31894 | 136.0774 | 115.097  | 114.4629 | -0.7628952 | 117.0139 | 118.6316 | 118.2225 | 57.2 | 30.2 | 118.7808 | 11.5 | 67.1 | 128.6023 | 9   | 39.4 | 121.9099 | 42.6 | 107.8 | 117.3615 | 44.5 | 153.1 | 112.967  |
| 29.466667 | 35.31894 | 136.0774 | 115.079  | 114.3653 | -0.7629767 | 117.0247 | 118.6451 | 118.2244 | 57.2 | 30.2 | 118.8288 | 11.5 | 67.1 | 128.1821 | 9   | 39.4 | 123.1761 | 42.6 | 107.8 | 117.2923 | 44.5 | 153.1 | 112.9713 |
| 29.47     | 35.31894 | 136.0774 | 115.0734 | 114.2985 | -0.7630584 | 117.0265 | 118.7154 | 118.2813 | 57.2 | 30.2 | 119.0008 | 11.5 | 67.1 | 128.4593 | 9   | 39.4 | 123.5481 | 42.6 | 107.8 | 117.1718 | 44.5 | 153.1 | 112.8018 |
| 29.473333 | 35.31894 | 136.0774 | 115.067  | 114.1248 | -0.7631399 | 116.9568 | 118.6757 | 118.235  | 57.2 | 30.2 | 118.9026 | 11.5 | 67.1 | 127.9488 | 9   | 39.4 | 124.5918 | 42.6 | 107.9 | 117.2054 | 44.5 | 153.1 | 112.657  |
| 29.476667 | 35.31894 | 136.0774 | 115.0695 | 113.9191 | -0.7632213 | 116.8689 | 118.7105 | 118.2619 | 57.2 | 30.2 | 118.9087 | 11.5 | 67.1 | 127.5252 | 9   | 39.4 | 125.7427 | 42.6 | 107.9 | 117.2645 | 44.5 | 153.1 | 112.2621 |
| 29.48     | 35.31894 | 136.0774 | 115.0718 | 113.481  | -0.7633018 | 116.7691 | 118.5491 | 118.0561 | 57.2 | 30.2 | 118.6654 | 11.5 | 67.1 | 127.4495 | 9   | 39.4 | 127.5592 | 42.6 | 107.9 | 117.1164 | 44.5 | 153.1 | 112.3165 |
| 29.483333 | 35.31894 | 136.0774 | 115.0799 | 113.5219 | -0.7633829 | 117.0191 | 118.4199 | 117.8944 | 57.2 | 30.2 | 118.545  | 11.5 | 67.1 | 126.9356 | 9   | 39.4 | 129.6012 | 42.6 | 107.9 | 116.891  | 44.5 | 153.1 | 113.5151 |
| 29.486667 | 35.31894 | 136.0774 | 115.0724 | 113.2635 | -0.7634632 | 117.122  | 118.3139 | 117.7338 | 57.2 | 30.2 | 118.3427 | 11.5 | 67.1 | 127.3827 | 9   | 39.4 | 131.1955 | 42.6 | 107.9 | 116.7947 | 44.5 | 153.1 | 114.1404 |
| 29.49     | 35.31894 | 136.0774 | 115.0737 | 112.9341 | -0.7635441 | 117.0461 | 118.2462 | 117.6303 | 57.2 | 30.2 | 118.2853 | 11.5 | 67.1 | 127.4793 | 9   | 39.4 | 132.5621 | 42.6 | 107.9 | 116.6203 | 44.5 | 153.1 | 114.0439 |
| 29.493333 | 35.31894 | 136.0774 | 115.0677 | 112.8335 | -0.7636253 | 117.1214 | 118.3408 | 117.7053 | 57.2 | 30.2 | 118.3721 | 11.5 | 67.1 | 127.2257 | 9   | 39.4 | 134.1542 | 42.6 | 107.9 | 116.677  | 44.5 | 153.1 | 114.0712 |
| 29.496667 | 35.31894 | 136.0774 | 115.0671 | 112.3258 | -0.7637062 | 116.8367 | 118.1405 | 117.4831 | 57.2 | 30.2 | 118.0857 | 11.5 | 67.1 | 126.7045 | 9   | 39.4 | 135.5217 | 42.6 | 107.9 | 116.5537 | 44.5 | 153.1 | 113.5751 |
| 29.5      | 35.31894 | 136.0774 | 115.0468 | 111.7678 | -0.7637865 | 116.6497 | 118.0376 | 117.3336 | 57.2 | 30.2 | 117.8193 | 11.5 | 67.1 | 127.0614 | 9   | 39.4 | 136.8881 | 42.6 | 107.9 | 116.5845 | 44.5 | 153.1 | 113.1778 |
| 29.503333 | 35.31894 | 136.0774 | 115.041  | 111.5095 | -0.7638677 | 116.5838 | 117.9448 | 117.2146 | 57.2 | 30.2 | 117.5532 | 11.5 | 67.1 | 127.5929 | 9   | 39.4 | 137.0271 | 42.6 | 107.9 | 116.6925 | 44.5 | 153.1 | 113.1791 |
| 29.506667 | 35.31894 | 136.0774 | 115.0236 | 111.3272 | -0.76395   | 116.3205 | 117.7847 | 117.0634 | 57.2 | 30.2 | 117.5354 | 11.5 | 67.1 | 127.332  | 9   | 39.4 | 136.6089 | 42.6 | 107.9 | 116.3354 | 44.5 | 153.1 | 112.6578 |
| 29.51     | 35.31894 | 136.0774 | 115.0016 | 111.184  | -0.7640328 | 115      |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 29.516667 | 35.31894 | 136.0774 | 114.9784 | 112.1091 | -0.7641991 | 116.3824 | 117.9306 | 117.3106 | 57.2 | 30.2 | 117.5844 | 11.5 | 67.1 | 127.5093 | 9   | 39.4 | 131.8812 | 42.6 | 107.9 | 116.8884 | 44.5 | 153.1 | 112.5096 |
| 29.52     | 35.31894 | 136.0774 | 114.9688 | 113.0566 | -0.7642826 | 117.0579 | 117.0579 | 116.4206 | 57.2 | 30.2 | 117.4204 | 11.5 | 67.1 | 127.4195 | 9   | 39.4 | 130.5613 | 42.6 | 107.9 | 114.8788 | #N/A | #N/A  | #N/A     |
| 29.523333 | 35.31894 | 136.0774 | 114.9646 | 112.6397 | -0.7643656 | 116.4017 | 116.4017 | 115.7766 | 57.2 | 30.2 | 117.1936 | 11.5 | 67.1 | 127.1553 | 9   | 39.4 | 128.6835 | 42.6 | 107.9 | 113.5915 | #N/A | #N/A  | #N/A     |
| 29.526667 | 35.31894 | 136.0774 | 114.9585 | 114.2846 | -0.7644495 | 117.5998 | 117.5998 | 117.0925 | 57.2 | 30.2 | 117.1533 | 11.5 | 67.1 | 126.7994 | 9   | 39.4 | 126.8005 | 42.6 | 107.9 | 116.9987 | #N/A | #N/A  | #N/A     |
| 29.53     | 35.31894 | 136.0774 | 114.9404 | 112.1287 | -0.7645315 | 115.4197 | 115.4197 | 114.8218 | 57.2 | 30.2 | 116.9884 | 11.5 | 67.1 | 126.8819 | 9   | 39.4 | 125.2544 | 42.6 | 107.9 | 111.4807 | #N/A | #N/A  | #N/A     |
| 29.533333 | 35.31894 | 136.0774 | 114.9242 | 113.637  | -0.764615  | 116.5777 | 116.5777 | 116.0805 | 57.2 | 30.2 | 117.0718 | 11.5 | 67   | 126.3479 | 9   | 39.4 | 124.3745 | 42.6 | 107.9 | 114.5517 | #N/A | #N/A  | #N/A     |
| 29.536667 | 35.31894 | 136.0774 | 114.9182 | 116.5206 | -0.7646982 | 119.1953 | 119.1953 | 118.8552 | 57.2 | 30.2 | 116.9278 | 11.5 | 67   | 126.516  | 9   | 39.4 | 123.493  | 42.6 | 107.9 | 121.8275 | #N/A | #N/A  | #N/A     |
| 29.54     | 35.31894 | 136.0774 | 114.9132 | 113.0035 | -0.7647793 | 115.7989 | 117.2867 | 116.8715 | 57.2 | 30.2 | 116.8858 | 11.5 | 67   | 126.2459 | 9   | 39.4 | 122.4977 | 42.6 | 107.9 | 116.8494 | 44.5 | 153.1 | 112.077  |
| 29.543333 | 35.31894 | 136.0774 | 114.8908 | 116.339  | -0.7648626 | 118.8482 | 118.878  | 118.5388 | 57.2 | 30.2 | 116.9071 | 11.5 | 67   | 126.5873 | 9   | 39.4 | 122.505  | 42.6 | 107.9 | 121.055  | 44.5 | 153.1 | 118.7737 |
| 29.546667 | 35.31894 | 136.0774 | 114.8842 | 115.555  | -0.7649444 | 118.0971 | 118.2163 | 117.8515 | 57.2 | 30.2 | 116.761  | 11.5 | 67   | 126.4002 | 9   | 39.4 | 122.2869 | 42.6 | 107.9 | 119.5332 | 44.5 | 153.1 | 117.7988 |
| 29.55     | 35.31894 | 136.0774 | 114.8782 | 114.9572 | -0.7650262 | 117.53   | 117.8321 | 117.4446 | 57.2 | 30.3 | 116.9269 | 11.5 | 67   | 126.3023 | 9   | 39.4 | 122.5183 | 42.6 | 107.9 | 118.243  | 44.5 | 153.1 | 116.7743 |
| 29.553333 | 35.31894 | 136.0774 | 114.8689 | 117.3576 | -0.7651096 | 119.5942 | 118.1544 | 117.8017 | 57.2 | 30.3 | 116.8636 | 11.5 | 67   | 125.322  | 9   | 39.4 | 123.2986 | 42.6 | 107.9 | 119.2485 | 44.5 | 153.1 | 123.1959 |
| 29.556667 | 35.31894 | 136.0774 | 114.8542 | 117.346  | -0.7651915 | 119.5946 | 117.9675 | 117.6138 | 57.2 | 30.3 | 116.738  | 11.5 | 67   | 124.4309 | 9   | 39.4 | 124.3048 | 42.6 | 107.9 | 118.9644 | 44.5 | 153.1 | 123.6649 |
| 29.56     | 35.31894 | 136.0774 | 114.854  | 116.0611 | -0.7652724 | 118.55   | 117.5721 | 117.1783 | 57.2 | 30.3 | 116.8407 | 11.5 | 67   | 124.4149 | 9   | 39.4 | 125.201  | 42.6 | 107.9 | 117.699  | 44.5 | 153.1 | 120.9962 |
| 29.563333 | 35.31894 | 136.0774 | 114.8472 | 115.1344 | -0.765353  | 117.916  | 117.2543 | 116.8216 | 57.2 | 30.3 | 116.7556 | 11.5 | 67   | 123.873  | 9   | 39.4 | 127.0978 | 42.6 | 107.9 | 116.9233 | 44.5 | 153.1 | 119.5715 |
| 29.566667 | 35.31894 | 136.0774 | 114.8498 | 114.916  | -0.7654344 | 117.8161 | 117.3652 | 116.9317 | 57.2 | 30.3 | 116.6709 | 11.5 | 67   | 123.5935 | 9   | 39.4 | 127.8796 | 42.6 | 107.9 | 117.3339 | 44.5 | 153.1 | 118.9442 |
| 29.57     | 35.31894 | 136.0774 | 114.8406 | 114.611  | -0.765515  | 117.8757 | 117.8757 | 117.4371 | 57.2 | 30.3 | 116.6686 | 11.5 | 67   | 123.3983 | 9   | 39.4 | 129.7774 | 42.6 | 107.9 | 118.6223 | #N/A | #N/A  | #N/A     |
| 29.573333 | 35.31894 | 136.0774 | 114.8505 | 114.1048 | -0.7655956 | 117.6669 | 117.6669 | 117.1778 | 57.2 | 30.3 | 116.7285 | 11.5 | 67   | 123.3776 | 9   | 39.4 | 131.6679 | 42.6 | 107.9 | 117.8707 | #N/A | #N/A  | #N/A     |
| 29.576667 | 35.31894 | 136.0774 | 114.8512 | 113.1459 | -0.7656755 | 117.1755 | 117.1755 | 116.6042 | 57.2 | 30.3 | 116.6215 | 11.5 | 67   | 123.6193 | 9   | 39.4 | 133.9001 | 42.6 | 107.9 | 116.5775 | #N/A | #N/A  | #N/A     |
| 29.58     | 35.31894 | 136.0774 | 114.8578 | 113.3111 | -0.765757  | 117.4384 | 117.4384 | 116.8675 | 57.2 | 30.3 | 116.6391 | 11.5 | 67   | 123.4205 | 9   | 39.4 | 134.8981 | 42.6 | 107.9 | 117.2196 | #N/A | #N/A  | #N/A     |
| 29.583333 | 35.31894 | 136.0774 | 114.8533 | 112.7032 | -0.7658379 | 116.9892 | 117.4141 | 116.8122 | 57.2 | 30.3 | 116.8017 | 11.5 | 67   | 123.3963 | 9   | 39.4 | 136.3434 | 42.6 | 107.9 | 116.8284 | 44.5 | 153.1 | 115.9263 |
| 29.586667 | 35.31894 | 136.0774 | 114.848  | 112.8399 | -0.7659199 | 117.1889 | 117.1889 | 116.5756 | 57.2 | 30.3 | 116.798  | 11.5 | 67   | 122.9341 | 9   | 39.4 | 137.0026 | 42.5 | 107.9 | 116.2313 | #N/A | #N/A  | #N/A     |
| 29.59     | 35.31894 | 136.0774 | 114.8433 | 113.5201 | -0.7660018 | 117.8766 | 117.8766 | 117.296  | 57.2 | 30.3 | 116.7529 | 11.5 | 67   | 122.8197 | 9   | 39.4 | 137.4394 | 42.5 | 107.9 | 118.1367 | #N/A | #N/A  | #N/A     |
| 29.61     | 35.31894 | 136.0774 | 114.7693 | 109.8098 | -0.7664951 | 113.6889 | 118.5113 | 118.1046 | 57.2 | 30.3 | 117.1384 | 11.5 | 67   | 122.1962 | 9   | 39.4 | 131.8559 | 42.5 | 107.9 | 119.6003 | 44.5 | 153.1 | 101.6424 |
| 29.613333 | 35.31894 | 136.0774 | 114.7598 | 109.2558 | -0.7665779 | 112.9209 | 118.3269 | 117.9696 | 57.2 | 30.3 | 116.8207 | 11.5 | 67   | 121.6368 | 9   | 39.4 | 129.9308 | 42.5 | 107.9 | 119.7481 | 44.5 | 153.1 | 99.4168  |
| 29.616667 | 35.31894 | 136.0774 | 114.7501 | 109.4691 | -0.7666616 | 112.7533 | 117.7273 | 117.3833 | 57.2 | 30.3 | 116.8775 | 11.5 | 67   | 121.6033 | 9   | 39.4 | 127.7758 | 42.5 | 107.9 | 118.1664 | 44.5 | 153.1 | 100.3285 |
| 29.62     | 35.31894 | 136.0774 | 114.7507 | 111.9395 | -0.7667464 | 114.5612 | 117.8208 | 117.5324 | 57.2 | 30.3 | 117.078  | 11.5 | 67   | 121.0417 | 9   | 39.4 | 126.2957 | 42.5 | 107.9 | 118.2358 | 44.5 | 153.1 | 106.4188 |
| 29.623333 | 35.31894 | 136.0774 | 114.7445 | 113.984  | -0.7668304 | 116.1504 | 117.9872 | 117.7461 | 57.2 | 30.3 | 116.9677 | 11.5 | 67   | 120.5641 | 9   | 39.4 | 125.2598 | 42.5 | 107.9 | 118.9511 | 44.5 | 153.1 | 111.562  |
| 29.626667 | 35.31894 | 136.0774 | 114.7385 | 115.1153 | -0.7669143 | 116.8295 | 117.9459 | 117.7514 | 57.2 | 30.3 | 117.0648 | 11.5 | 67   | 119.9123 | 9   | 39.4 | 123.9974 | 42.5 | 107.9 | 118.8142 | 44.5 | 153.1 | 114.0408 |
| 29.63     | 35.31894 | 136.0774 | 114.7249 | 115.6155 | -0.7669979 | 116.9452 | 117.9328 | 117.7914 | 57.2 | 30.3 | 117.2026 | 11.5 | 67   | 118.908  | 9   | 39.4 | 123.0701 | 42.5 | 107.9 | 118.7028 | 44.5 | 153.1 | 114.4781 |
| 29.633333 | 35.31894 | 136.0774 | 114.721  | 116.0123 | -0.7670809 | 117.0937 | 118.0561 | 117.9528 | 57.2 | 30.3 | 117.3408 | 11.5 | 67   | 118.427  | 9   | 39.4 | 122.3626 | 42.5 | 107.9 | 118.9002 | 44.5 | 153.1 | 114.6896 |
| 29.636667 | 35.31894 | 136.0774 | 114.7207 | 116.67   | -0.7671636 | 117.5637 | 117.8718 | 117.7771 | 57.2 | 30.3 | 117.2912 | 11.5 | 67   | 118.0352 | 9   | 39.4 | 122.1061 | 42.5 | 107.9 | 118.5293 | 44.5 | 153.1 | 116.7942 |
| 29.64     | 35.31894 | 136.0774 | 114.7135 | 117.3594 | -0.767246  | 118.1553 | 117.8977 | 117.8038 | 57.2 | 30.3 | 117.3247 | 11.5 | 67   | 118.0789 | 9   | 39.4 | 122.0663 | 42.5 | 107.9 | 118.5455 | 44.5 | 153.1 | 118.7986 |
| 29.643333 | 35.31894 | 136.0774 | 114.7012 | 116.171  | -0.7673275 | 117.0614 | 117.5968 | 117.506  | 57.2 | 30.3 | 117.1912 | 11.5 | 67   | 117.2456 | 9   | 39.4 | 122.4811 | 42.5 | 107.9 | 117.9934 | 44.5 | 153.1 | 115.7238 |
| 29.646667 | 35.31894 | 136.0774 | 114.6995 | 116.008  | -0.7674094 | 116.892  | 117.4546 | 117.3681 | 57.2 | 30.3 | 117.0373 | 11.5 | 67   | 116.8478 | 9   | 39.4 | 122.5507 | 42.5 | 107.9 | 117.8802 | 44.5 | 153.1 | 115.4867 |
| 29.65     | 35.31894 | 136.0774 | 114.6797 | 115.5567 | -0.7674909 | 116.5362 | 117.3107 | 117.2199 | 57.2 | 30.3 | 116.8003 | 11.5 | 67   | 116.627  | 9   | 39.4 | 122.7377 | 42.5 | 107.9 | 117.8695 | 44.5 | 153.1 | 114.6014 |
| 29.653333 | 35.31894 | 136.0774 | 114.6622 | 115.2009 | -0.7675722 | 116.3062 | 117.2532 | 117.1459 | 57.2 | 30.3 | 116.8529 | 11.5 | 67   | 116.4904 | 9   | 39.4 | 123.5915 | 42.5 | 107.9 | 117.5995 | 44.5 | 153.1 | 113.9406 |
| 29.656667 | 35.31894 | 136.0774 | 114.6505 | 115.3369 | -0.7676537 | 116.5339 | 117.2588 | 117.149  | 57.2 | 30.3 | 116.6981 | 11.5 | 67   | 115.5647 | 9   | 39.4 | 125.228  | 42.5 | 107.9 | 117.847  | 44.5 | 153.1 | 114.7233 |
| 29.66     | 35.31894 | 136.0774 | 114.6417 | 115.14   | -0.7677339 | 116.7061 | 117.2364 | 117.0706 | 57.2 | 30.3 | 116.6263 | 11.5 | 67   | 115.9501 | 9   | 39.4 | 127.204  | 42.5 | 107.9 | 117.7584 | 44.5 | 153.1 | 115.3816 |
| 29.663333 | 35.31894 | 136.0774 | 114.6303 | 114.6878 | -0.7678149 | 116.4529 | 117.0674 | 116.88   | 57.2 | 30.3 | 116.4704 | 11.5 | 67   | 115.3733 | 9   | 39.4 | 128.7259 | 42.5 | 107.9 | 117.514  | 44.5 | 153.1 | 114.918  |
| 29.666667 | 35.31894 | 136.0774 | 114.6243 | 113.9981 | -0.7678952 | 116.1248 | 116.953  | 116.7269 | 57.2 | 30.3 | 116.2939 | 11.5 | 67   | 115.4954 | 8.9 | 39.4 | 130.3591 | 42.5 | 107.9 | 117.3972 | 44.5 | 153.1 | 114.0568 |
| 29.67     | 35.31894 | 136.0774 | 114.6094 | 112.9598 | -0.7679751 | 115.522  | 116.823  | 116.5519 | 57.2 | 30.3 | 116.0136 | 11.5 | 67   | 115.6163 | 8.9 | 39.4 | 131.9978 | 42.5 | 107.9 | 117.3852 | 44.5 | 153.1 | 112.2736 |
| 29.673333 | 35.31894 | 136.0774 | 114.5919 | 112.9747 | -0.768057  | 115.5418 | 116.8574 | 116.5932 | 57.2 | 30.3 | 115.9401 | 11.5 | 67   | 115.297  | 8.9 | 39.4 | 132.2817 | 42.5 | 107.9 | 117.6043 | 44.5 | 153.1 | 112.2571 |
| 29.676667 | 35.31894 | 136.0774 | 114.5777 | 112.806  | -0.7681385 | 115.4571 | 116.6154 | 116.3309 | 57.2 | 30.3 | 115.6169 | 11.5 | 67   | 115.9423 | 8.9 | 39.4 | 131.5578 | 42.5 | 107.9 | 117.4362 | 44.5 | 153.1 | 112.5648 |
| 29.68     | 35.31894 | 136.0774 | 114.5639 | 112.4393 | -0.7682206 | 115.055  | 116.5274 | 116.2479 | 57.2 | 30.3 | 115.5226 | 11.5 | 67   | 116.4962 | 8.9 | 39.4 | 130.1599 | 42.5 | 107.9 | 117.3706 | 44.5 | 153.1 | 111.3785 |
| 29.683333 | 35.31894 | 136.0774 | 114.5509 | 112.606  | -0.7683027 | 115.172  | 116.4983 | 116.22   | 57.2 | 30.3 | 115.4691 | 11.5 | 67   | 116.7879 | 8.9 | 39.4 | 129.5418 | 42.5 | 107.9 |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |     |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-----|----------|------|-------|----------|
| 29.69     | 35.31894 | 136.0774 | 114.5413 | 113.0198 | -0.7684679 | 115.246  | 116.3581 | 116.1147 | 57.1 | 30.3 | 115.1957 | 11.5 | 67   | 117.6287 | 8.9 | 39.4 | 126.0581 | 42.5 | 108 | 117.5341 | 44.5 | 153.1 | 112.4727 |
| 29.693333 | 35.31894 | 136.0774 | 114.544  | 113.1407 | -0.7685505 | 115.2153 | 116.582  | 116.3557 | 57.1 | 30.3 | 115.536  | 11.5 | 67   | 118.268  | 8.9 | 39.4 | 124.7621 | 42.5 | 108 | 117.6217 | 44.5 | 153.1 | 111.8072 |
| 29.696667 | 35.31894 | 136.0774 | 114.5581 | 113.5248 | -0.7686336 | 115.3343 | 116.7557 | 116.5622 | 57.1 | 30.3 | 115.7522 | 11.5 | 67   | 118.6402 | 8.9 | 39.4 | 123.017  | 42.5 | 108 | 117.8133 | 44.5 | 153.1 | 111.7897 |
| 29.7      | 35.31894 | 136.0774 | 114.55   | 115.429  | -0.7687172 | 116.8695 | 116.8695 | 116.6912 | 57.1 | 30.3 | 115.9252 | 11.5 | 67   | 119.3624 | 8.9 | 39.4 | 121.3825 | 42.5 | 108 | 117.8743 | #N/A | #N/A  | #N/A     |
| 29.703333 | 35.31894 | 136.0774 | 114.5521 | 115.7072 | -0.7688003 | 116.8724 | 116.8724 | 116.7222 | 57.1 | 30.3 | 116.0367 | 11.5 | 67   | 119.7347 | 8.9 | 39.4 | 119.4048 | 42.5 | 108 | 117.7811 | #N/A | #N/A  | #N/A     |
| 29.706667 | 35.31894 | 136.0774 | 114.5495 | 116.7083 | -0.7688835 | 117.551  | 116.939  | 116.8075 | 57.1 | 30.3 | 116.2717 | 11.5 | 67   | 120.0155 | 8.9 | 39.4 | 118.2139 | 42.5 | 108 | 117.635  | 44.5 | 153.1 | 119.077  |
| 29.71     | 35.31894 | 136.0774 | 114.5544 | 116.2164 | -0.7689656 | 117.0067 | 117.0228 | 116.9011 | 57.1 | 30.3 | 116.4868 | 11.5 | 67   | 120.6463 | 8.9 | 39.4 | 116.9085 | 42.5 | 108 | 117.541  | 44.5 | 153.1 | 116.9668 |
| 29.713333 | 35.31894 | 136.0774 | 114.5566 | 113.2364 | -0.769047  | 114.1382 | 117.0348 | 116.9611 | 57.1 | 30.3 | 116.5968 | 11.5 | 67   | 120.052  | 8.9 | 39.4 | 115.6043 | 42.5 | 108 | 117.5237 | 44.5 | 153.1 | 106.9148 |
| 29.716667 | 35.31894 | 136.0774 | 114.5543 | 109.9779 | -0.7691274 | 111.1999 | 116.9199 | 116.8543 | 57.1 | 30.3 | 116.5827 | 11.5 | 67   | 120.4195 | 8.9 | 39.4 | 114.2952 | 42.5 | 108 | 117.2737 | 44.5 | 153.1 | 96.936   |
| 29.72     | 35.31894 | 136.0774 | 114.5571 | 112.1601 | -0.7692112 | 112.9528 | 116.958  | 116.908  | 57.1 | 30.3 | 116.7333 | 11.5 | 67   | 120.6078 | 8.9 | 39.4 | 113.3223 | 42.5 | 108 | 117.1779 | 44.5 | 153.1 | 102.9652 |
| 29.723333 | 35.31894 | 136.0774 | 114.5566 | 114.0909 | -0.7692948 | 114.4807 | 117.0205 | 116.9875 | 57.1 | 30.3 | 116.9264 | 11.5 | 67   | 120.7999 | 8.9 | 39.4 | 112.3477 | 42.5 | 108 | 117.0818 | 44.5 | 153.1 | 108.1473 |
| 29.726667 | 35.31894 | 136.0774 | 114.5642 | 113.5958 | -0.7693767 | 113.9862 | 117.0146 | 116.9858 | 57.1 | 30.3 | 117.0354 | 11.5 | 67   | 120.9859 | 8.9 | 39.4 | 111.8192 | 42.5 | 108 | 116.9092 | 44.5 | 153.2 | 106.4342 |
| 29.73     | 35.31894 | 136.0774 | 114.5603 | 112.7149 | -0.7694579 | 113.2505 | 116.9811 | 116.9456 | 57.1 | 30.3 | 116.9988 | 11.5 | 67   | 121.1731 | 8.9 | 39.4 | 111.7402 | 42.5 | 108 | 116.8635 | 44.5 | 153.2 | 103.9476 |
| 29.733333 | 35.31894 | 136.0774 | 114.5548 | 114.0937 | -0.7695405 | 114.4725 | 117.0045 | 116.964  | 57.1 | 30.3 | 117.0244 | 11.5 | 67   | 121.2714 | 8.9 | 39.4 | 111.8852 | 42.5 | 108 | 116.8707 | 44.5 | 153.2 | 108.1585 |
| 29.736667 | 35.31894 | 136.0774 | 114.5639 | 115.5106 | -0.7696231 | 115.7025 | 116.9597 | 116.9161 | 57.1 | 30.3 | 116.9253 | 11.5 | 67   | 121.544  | 8.9 | 39.4 | 111.4647 | 42.5 | 108 | 116.9019 | 44.5 | 153.2 | 112.5673 |
| 29.74     | 35.31894 | 136.0774 | 114.5638 | 115.9221 | -0.7697049 | 116.1467 | 117.0122 | 116.954  | 57.1 | 30.3 | 116.9504 | 11.5 | 67   | 121.9007 | 8.9 | 39.4 | 111.7195 | 42.5 | 108 | 116.9595 | 44.5 | 153.2 | 113.9885 |
| 29.743333 | 35.31894 | 136.0774 | 114.5724 | 117.949  | -0.7697875 | 117.997  | 117.1079 | 117.0365 | 57.1 | 30.4 | 117.0163 | 11.5 | 67   | 122.0832 | 8.9 | 39.4 | 112.3082 | 42.5 | 108 | 117.0678 | 44.5 | 153.2 | 120.214  |
| 29.746667 | 35.31894 | 136.0774 | 114.5847 | 118.8318 | -0.7698696 | 118.8263 | 117.0312 | 116.9529 | 57.1 | 30.4 | 116.8747 | 11.5 | 67   | 121.7404 | 8.9 | 39.4 | 113.0117 | 42.5 | 108 | 117.0736 | 44.5 | 153.2 | 123.3028 |
| 29.75     | 35.31894 | 136.0774 | 114.5677 | 118.7153 | -0.769951  | 118.8135 | 117.1623 | 117.0759 | 57.1 | 30.4 | 116.9406 | 11.5 | 67   | 121.8303 | 8.9 | 39.4 | 113.6009 | 42.5 | 108 | 117.2849 | 44.5 | 153.2 | 122.9311 |
| 29.753333 | 35.31894 | 136.0774 | 114.5631 | 119.1394 | -0.7700324 | 119.3323 | 117.19   | 117.0823 | 57.1 | 30.4 | 116.8812 | 11.5 | 67   | 122.0092 | 8.9 | 39.4 | 114.4114 | 42.5 | 108 | 117.3929 | 44.5 | 153.2 | 124.6747 |
| 29.756667 | 35.31894 | 136.0774 | 114.5668 | 118.6338 | -0.7701139 | 118.905  | 117.2002 | 117.0926 | 57.1 | 30.4 | 117.0293 | 11.5 | 67   | 121.3997 | 8.9 | 39.4 | 115.4463 | 42.5 | 108 | 117.1904 | 44.5 | 153.2 | 123.1561 |
| 29.76     | 35.31894 | 136.0774 | 114.5686 | 117.923  | -0.7701942 | 118.5503 | 117.212  | 117.0675 | 57.1 | 30.4 | 116.9693 | 11.5 | 67   | 121.4007 | 8.9 | 39.4 | 117.2673 | 42.5 | 108 | 117.2193 | 44.5 | 153.2 | 121.8876 |
| 29.763333 | 35.31894 | 136.0774 | 114.5679 | 118.2192 | -0.7702761 | 118.8297 | 117.3837 | 117.2477 | 57.1 | 30.4 | 117.0966 | 11.5 | 67   | 120.8741 | 8.9 | 39.4 | 118.1869 | 42.5 | 108 | 117.481  | 44.5 | 153.2 | 122.4355 |
| 29.766667 | 35.31894 | 136.0774 | 114.5734 | 117.9758 | -0.7703568 | 118.833  | 117.5286 | 117.3586 | 57.1 | 30.4 | 117.3272 | 11.5 | 67   | 121.1386 | 8.9 | 39.4 | 119.783  | 42.5 | 108 | 117.407  | 44.5 | 153.2 | 122.0857 |
| 29.77     | 35.31894 | 136.0774 | 114.5773 | 117.7551 | -0.7704379 | 118.7784 | 117.6317 | 117.4489 | 57.1 | 30.4 | 117.3909 | 11.5 | 67   | 120.7852 | 8.9 | 39.4 | 121.2651 | 42.5 | 108 | 117.5384 | 44.5 | 153.2 | 121.6378 |
| 29.773333 | 35.31894 | 136.0774 | 114.5752 | 117.8533 | -0.7705199 | 118.849  | 117.6813 | 117.5114 | 57.1 | 30.4 | 117.4757 | 11.5 | 66.9 | 119.7311 | 8.9 | 39.4 | 122.52   | 42.5 | 108 | 117.5666 | 44.5 | 153.2 | 121.761  |
| 29.776667 | 35.31894 | 136.0774 | 114.5656 | 116.9165 | -0.7705999 | 118.3205 | 117.8297 | 117.6212 | 57.1 | 30.4 | 117.7055 | 11.5 | 66.9 | 119.4631 | 8.9 | 39.4 | 125.2363 | 42.5 | 108 | 117.4909 | 44.5 | 153.2 | 119.5444 |
| 29.78     | 35.31894 | 136.0774 | 114.5608 | 116.7167 | -0.7706805 | 118.3952 | 118.1447 | 117.9135 | 57.1 | 30.4 | 117.935  | 11.5 | 66.9 | 119.194  | 8.9 | 39.4 | 127.616  | 42.5 | 108 | 117.8804 | 44.5 | 153.2 | 119.02   |
| 29.783333 | 35.31894 | 136.0774 | 114.5533 | 116.7507 | -0.7707615 | 118.612  | 118.2098 | 117.9544 | 57.1 | 30.4 | 118.1017 | 11.5 | 66.9 | 118.5752 | 8.9 | 39.4 | 129.9948 | 42.5 | 108 | 117.7269 | 44.5 | 153.2 | 119.615  |
| 29.786667 | 35.31894 | 136.0774 | 114.5567 | 116.7646 | -0.7708423 | 118.8552 | 118.3318 | 118.046  | 57.1 | 30.4 | 118.1854 | 11.5 | 66.9 | 118.5669 | 8.9 | 39.4 | 131.8076 | 42.5 | 108 | 117.8308 | 44.5 | 153.2 | 120.1605 |
| 29.79     | 35.31894 | 136.0774 | 114.5525 | 117.0103 | -0.7709239 | 119.1727 | 118.4081 | 118.112  | 57.1 | 30.4 | 118.3105 | 11.5 | 66.9 | 118.0335 | 8.9 | 39.4 | 133.3964 | 42.5 | 108 | 117.8054 | 44.5 | 153.2 | 121.0793 |
| 29.793333 | 35.31894 | 136.0774 | 114.5456 | 117.1506 | -0.7710058 | 119.282  | 118.4927 | 118.2079 | 57.1 | 30.4 | 118.3513 | 11.5 | 66.9 | 117.4965 | 8.9 | 39.4 | 133.9664 | 42.5 | 108 | 117.9863 | 44.5 | 153.2 | 121.2504 |
| 29.796667 | 35.31894 | 136.0774 | 114.5371 | 116.4346 | -0.7710865 | 118.834  | 118.535  | 118.2325 | 57.1 | 30.4 | 118.3919 | 11.5 | 66.9 | 116.7854 | 8.9 | 39.4 | 136.1183 | 42.5 | 108 | 117.9862 | 44.5 | 153.2 | 119.5796 |
| 29.8      | 35.31894 | 136.0774 | 114.5129 | 117.4985 | -0.7711742 | 118.5653 | 118.3396 | 118.2093 | 57.1 | 30.4 | 118.3709 | 11.5 | 66.9 | 116.5995 | 8.9 | 39.4 | 127.55   | 42.5 | 108 | 117.9598 | 44.5 | 153.2 | 119.128  |
| 29.803333 | 35.31894 | 136.0774 | 114.4983 | 118.4086 | -0.7712619 | 118.1612 | 118.2244 | 118.2719 | 57.1 | 30.4 | 118.3073 | 11.5 | 66.9 | 116.5828 | 8.9 | 39.4 | 118.6417 | 42.5 | 108 | 118.2173 | 44.5 | 153.2 | 118.0036 |
| 29.806667 | 35.31894 | 136.0774 | 114.4861 | 119.4884 | -0.7713513 | 117.5346 | 117.9672 | 118.2383 | 57.1 | 30.4 | 118.1189 | 11.5 | 66.9 | 117.179  | 8.9 | 39.4 | 106.1188 | 42.5 | 108 | 118.4228 | 44.5 | 153.2 | 116.456  |
| 29.81     | 35.31894 | 136.0774 | 114.4541 | 119.4166 | -0.7714332 | 117.4476 | 117.8571 | 118.1208 | 57.1 | 30.4 | 117.9929 | 11.5 | 66.9 | 118.0372 | 8.9 | 39.4 | 104.764  | 42.5 | 108 | 118.3183 | 44.5 | 153.2 | 116.4264 |
| 29.813333 | 35.31894 | 136.0774 | 114.4382 | 119.0003 | -0.7715139 | 117.2859 | 117.7521 | 117.9825 | 57.1 | 30.4 | 117.7831 | 11.5 | 66.9 | 118.3703 | 8.9 | 39.4 | 105.5446 | 42.5 | 108 | 118.2906 | 44.5 | 153.2 | 116.1233 |
| 29.816667 | 35.31894 | 136.0774 | 114.4188 | 118.8854 | -0.7715957 | 117.1775 | 117.5526 | 117.7807 | 57.1 | 30.4 | 117.4689 | 11.5 | 66.9 | 118.5269 | 8.9 | 39.4 | 104.8622 | 42.5 | 108 | 118.2624 | 44.5 | 153.2 | 116.2421 |
| 29.82     | 35.31894 | 136.0774 | 114.405  | 119.2523 | -0.7716795 | 117.1063 | 117.3553 | 117.6444 | 57.1 | 30.4 | 117.196  | 11.5 | 66.9 | 118.0682 | 8.9 | 39.4 | 102.147  | 42.5 | 108 | 118.3369 | 44.5 | 153.2 | 116.4854 |
| 29.823333 | 35.31894 | 136.0774 | 114.3906 | 119.3088 | -0.7717615 | 117.115  | 117.0605 | 117.3463 | 57.1 | 30.4 | 116.8401 | 11.5 | 66.9 | 118.3101 | 8.9 | 39.4 | 101.1181 | 42.5 | 108 | 118.1281 | 44.5 | 153.2 | 117.2511 |
| 29.826667 | 35.31894 | 136.0774 | 114.382  | 119.6387 | -0.7718438 | 117.3275 | 117.0211 | 117.3154 | 57.1 | 30.4 | 116.7745 | 11.5 | 66.9 | 118.5508 | 8.9 | 39.4 | 100.2038 | 42.5 | 108 | 118.1508 | 44.5 | 153.2 | 118.0914 |
| 29.83     | 35.31894 | 136.0774 | 114.3629 | 116.0434 | -0.7719088 | 117.5201 | 117.4235 | 117.2438 | 57.1 | 30.4 | 116.7093 | 11.5 | 66.9 | 118.0886 | 8.9 | 39.4 | 125.0361 | 42.5 | 108 | 118.0694 | 44.5 | 153.2 | 117.7609 |
| 29.833333 | 35.31894 | 136.0774 | 114.3489 | 116.313  | -0.7719923 | 117.4042 | 117.2939 | 117.1641 | 57.1 | 30.4 | 116.5806 | 11.5 | 66.9 | 118.0638 | 8.9 | 39.4 | 122.3128 | 42.5 | 108 | 118.0654 | 44.5 | 153.2 | 117.6791 |
| 29.836667 | 35.31894 | 136.0774 | 114.3428 | 114.1912 | -0.7720644 | 117.4643 | 117.3313 | 116.9221 | 57.1 | 30.4 | 116.3688 | 11.5 | 66.9 | 117.8624 | 8.9 | 39.4 | 136.3034 | 42.5 | 108 | 117.7768 | 44.5 | 153.2 | 117.7959 |
| 29.84     | 35.31894 | 136.0774 | 114.3287 | 113.528  | -0.7721442 | 117.2434 |          |          |      |      |          |      |      |          |     |      |          |      |     |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 29.846667 | 35.31894 | 136.0774 | 114.3148 | 113.2703 | -0.7723085 | 116.826  | 116.6563 | 116.2232 | 57.1 | 30.4 | 115.4615 | 11.5 | 66.9 | 116.5548 | 8.9 | 39.4 | 137.8429 | 42.5 | 108   | 117.3996 | 44.5 | 153.2 | 117.2492 |
| 29.85     | 35.31894 | 136.0774 | 114.3126 | 113.4821 | -0.772391  | 116.8836 | 116.6503 | 116.2329 | 57.1 | 30.4 | 115.5815 | 11.5 | 66.9 | 116.4364 | 8.9 | 39.4 | 137.2587 | 42.5 | 108   | 117.239  | 44.5 | 153.2 | 117.4652 |
| 29.853333 | 35.31894 | 136.0774 | 114.3019 | 113.0714 | -0.7724723 | 116.604  | 116.3821 | 115.9518 | 57.1 | 30.4 | 115.223  | 11.5 | 66.9 | 116.0538 | 8.9 | 39.4 | 137.8065 | 42.5 | 108   | 117.0774 | 44.5 | 153.2 | 117.1574 |
| 29.856667 | 35.31894 | 136.0774 | 114.2979 | 112.856  | -0.7725547 | 116.2432 | 116.1    | 115.6925 | 57.1 | 30.4 | 114.9673 | 11.5 | 66.9 | 115.4947 | 8.9 | 39.4 | 136.879  | 42.5 | 108   | 116.8125 | 44.5 | 153.2 | 116.6004 |
| 29.86     | 35.31894 | 136.0774 | 114.2893 | 111.1848 | -0.7726284 | 116.4004 | 116.4539 | 115.8176 | 57.1 | 30.4 | 115.211  | 11.5 | 66.9 | 115.2    | 8.9 | 39.4 | 149.4098 | 42.5 | 108   | 116.7546 | 44.5 | 153.2 | 116.267  |
| 29.863333 | 35.31894 | 136.0774 | 114.2693 | 110.2637 | -0.7727063 | 116.3371 | 116.439  | 115.694  | 57.1 | 30.4 | 115.2465 | 11.5 | 66.9 | 114.5534 | 8.9 | 39.4 | 155.7186 | 42.5 | 108   | 116.3853 | 44.5 | 153.2 | 116.083  |
| 29.866667 | 35.31894 | 136.0774 | 114.2569 | 110.8527 | -0.7727909 | 116.4052 | 116.4052 | 115.7455 | 57.1 | 30.4 | 115.3026 | 11.5 | 66.9 | 113.9933 | 8.9 | 39.4 | 152.4168 | 42.5 | 108   | 116.4297 | #N/A | #N/A  | #N/A     |
| 29.87     | 35.31894 | 136.0774 | 114.2389 | 113.1871 | -0.7728843 | 116.086  | 116.086  | 115.7553 | 57.1 | 30.4 | 115.4412 | 11.5 | 66.9 | 113.6926 | 8.9 | 39.4 | 136.1072 | 42.5 | 108   | 116.2404 | #N/A | #N/A  | #N/A     |
| 29.873333 | 35.31894 | 136.0774 | 114.2252 | 113.0661 | -0.7729663 | 115.9291 | 115.9291 | 115.604  | 57.1 | 30.4 | 115.2472 | 11.5 | 66.9 | 113.5661 | 8.9 | 39.4 | 135.6251 | 42.5 | 108   | 116.1551 | #N/A | #N/A  | #N/A     |
| 29.876667 | 35.31894 | 136.0774 | 114.2043 | 115.3839 | -0.7730608 | 115.3244 | 115.3244 | 115.3636 | 57.1 | 30.4 | 114.9909 | 11.5 | 66.9 | 113.3507 | 8.9 | 39.4 | 116.7027 | 42.5 | 108   | 115.9392 | #N/A | #N/A  | #N/A     |
| 29.88     | 35.31894 | 136.0774 | 114.1884 | 115.964  | -0.773146  | 115.1143 | 115.1143 | 115.257  | 57.1 | 30.4 | 114.8374 | 11.5 | 66.9 | 112.8712 | 8.9 | 39.4 | 111.9158 | 42.5 | 108   | 115.9051 | #N/A | #N/A  | #N/A     |
| 29.883333 | 35.31894 | 136.0774 | 114.1695 | 116.6623 | -0.7732314 | 114.9899 | 114.9899 | 115.2375 | 57.1 | 30.4 | 114.8296 | 11.5 | 66.9 | 112.5683 | 8.9 | 39.4 | 107.0125 | 42.4 | 108   | 115.87   | #N/A | #N/A  | #N/A     |
| 29.886667 | 35.31894 | 136.0774 | 114.1565 | 117.5293 | -0.7733179 | 114.7807 | 114.7807 | 115.178  | 57.1 | 30.4 | 114.6547 | 11.5 | 66.9 | 111.2999 | 8.9 | 39.4 | 101.3151 | 42.4 | 108   | 115.9893 | #N/A | #N/A  | #N/A     |
| 29.89     | 35.31894 | 136.0774 | 114.144  | 118.7346 | -0.7734071 | 114.2883 | 114.2883 | 114.8929 | 57.1 | 30.4 | 114.4592 | 11.5 | 66.9 | 111.1676 | 8.9 | 39.4 | 90.1819  | 42.4 | 108   | 115.5652 | #N/A | #N/A  | #N/A     |
| 29.893333 | 35.31894 | 136.0774 | 114.1326 | 119.7553 | -0.7734954 | 113.9293 | 114.0863 | 114.8869 | 57.1 | 30.4 | 114.3886 | 11.5 | 66.9 | 110.9464 | 8.9 | 39.4 | 80.5137  | 42.4 | 108   | 115.6594 | 44.5 | 153.2 | 113.5385 |
| 29.896667 | 35.31894 | 136.0774 | 114.1195 | 118.8654 | -0.7735769 | 113.1119 | 113.9553 | 114.7883 | 57.1 | 30.4 | 114.317  | 11.5 | 66.9 | 107.8412 | 8.9 | 39.4 | 83.7503  | 42.4 | 108   | 115.5191 | 44.5 | 153.2 | 111.0116 |
| 29.9      | 35.31894 | 136.0774 | 114.1137 | 118.3924 | -0.7736568 | 113.0533 | 114.0185 | 114.7863 | 57.1 | 30.4 | 114.2041 | 11.5 | 66.9 | 109.8043 | 8.9 | 39.4 | 83.8162  | 42.4 | 108   | 115.6889 | 44.5 | 153.2 | 110.65   |
| 29.903333 | 35.31894 | 136.0774 | 114.1033 | 116.4222 | -0.7737292 | 113.1988 | 114.1678 | 114.6036 | 57.1 | 30.4 | 114.1112 | 11.5 | 66.9 | 115.8711 | 8.9 | 39.4 | 90.2248  | 42.4 | 108.1 | 115.3671 | 44.5 | 153.2 | 110.7857 |
| 29.906667 | 35.31894 | 136.0774 | 114.1006 | 112.896  | -0.7737985 | 112.4639 | 114.5628 | 114.6136 | 57.1 | 30.4 | 114.1848 | 11.5 | 66.9 | 121.1526 | 8.9 | 39.4 | 101.1613 | 42.4 | 108.1 | 115.2784 | 44.5 | 153.2 | 107.2374 |
| 29.91     | 35.31894 | 136.0774 | 114.0868 | 112.0257 | -0.7738772 | 112.291  | 114.5362 | 114.4355 | 57.1 | 30.4 | 114.0496 | 11.5 | 66.9 | 127.7449 | 8.9 | 39.4 | 97.4823  | 42.4 | 108.1 | 115.0337 | 44.5 | 153.2 | 106.7001 |
| 29.913333 | 35.31894 | 136.0774 | 114.0772 | 114.7587 | -0.7739698 | 112.5889 | 114.0503 | 114.3866 | 57.1 | 30.4 | 113.9772 | 11.5 | 66.9 | 112.7454 | 8.9 | 39.4 | 99.9236  | 42.4 | 108.1 | 115.0213 | 44.5 | 153.2 | 108.9499 |
| 29.916667 | 35.31894 | 136.0774 | 114.0618 | 116.9341 | -0.7740591 | 113.0703 | 113.682  | 114.2781 | 57.1 | 30.4 | 114.0077 | 11.5 | 66.9 | 105.6992 | 8.9 | 39.4 | 98.0587  | 42.4 | 108.1 | 114.6973 | 44.5 | 153.2 | 111.5472 |
| 29.92     | 35.31894 | 136.0774 | 114.0439 | 115.9871 | -0.7741322 | 114.0712 | 113.9116 | 114.1525 | 57.1 | 30.4 | 113.9759 | 11.5 | 66.9 | 114.8223 | 8.9 | 39.4 | 100.725  | 42.4 | 108.1 | 114.4264 | 44.5 | 153.2 | 114.4686 |
| 29.923333 | 35.31894 | 136.0774 | 114.0374 | 115.3642 | -0.7742089 | 114.5875 | 113.9625 | 114.0417 | 57.1 | 30.4 | 113.9027 | 11.5 | 66.9 | 115.2891 | 8.9 | 39.4 | 107.9212 | 42.4 | 108.1 | 114.2573 | 44.5 | 153.2 | 116.1439 |
| 29.926667 | 35.31894 | 136.0774 | 114.0261 | 113.7503 | -0.7742822 | 114.8755 | 114.5723 | 114.3406 | 57.1 | 30.4 | 114.2862 | 11.5 | 66.9 | 123.1846 | 8.9 | 39.4 | 111.496  | 42.4 | 108.1 | 114.425  | 44.5 | 153.2 | 115.6306 |
| 29.93     | 35.31894 | 136.0774 | 114.0195 | 111.6403 | -0.7743567 | 114.3911 | 114.4198 | 114.002  | 57.1 | 30.4 | 113.7549 | 11.5 | 66.9 | 121.9887 | 8.9 | 39.4 | 122.0939 | 42.4 | 108.1 | 114.385  | 44.5 | 153.2 | 114.3197 |
| 29.933333 | 35.31894 | 136.0774 | 114.0202 | 108.0518 | -0.7744259 | 113.6331 | 113.3743 | 112.6007 | 57.1 | 30.4 | 111.5592 | 11.5 | 66.9 | 122.1914 | 8.9 | 39.4 | 136.2087 | 42.4 | 108.1 | 114.2156 | 44.5 | 153.2 | 114.2777 |
| 29.936667 | 35.31894 | 136.0774 | 114.0102 | 106.9041 | -0.774502  | 113.7562 | 113.144  | 112.2283 | 57.1 | 30.4 | 110.9231 | 11.5 | 66.9 | 119.8589 | 8.9 | 39.4 | 146.3581 | 42.4 | 108.1 | 114.2519 | 44.5 | 153.2 | 115.2807 |
| 29.94     | 35.31894 | 136.0774 | 114.0209 | 107.5774 | -0.7745914 | 112.6916 | 111.6284 | 111.1472 | 57.1 | 30.5 | 109.288  | 11.5 | 66.9 | 99.1716  | 8.8 | 39.3 | 156.6224 | 42.4 | 108.1 | 114.0299 | 44.5 | 153.2 | 115.3379 |
| 29.943333 | 35.31894 | 136.0774 | 114.0199 | 111.8368 | -0.7746851 | 114.282  | 114.4251 | 114.3568 | 57.1 | 30.5 | 114.5777 | 11.5 | 66.9 | 89.9342  | 8.8 | 39.3 | 159.4023 | 42.4 | 108.1 | 114.0143 | 44.5 | 153.2 | 113.9259 |
| 29.946667 | 35.31894 | 136.0774 | 114.0194 | 108.8403 | -0.7747668 | 111.3035 | 111.0672 | 111.0913 | 57.1 | 30.5 | 109.2827 | 11.5 | 66.9 | 83.1399  | 8.8 | 39.3 | 157.3018 | 42.4 | 108.1 | 113.8954 | 44.5 | 153.2 | 111.8918 |
| 29.95     | 35.31894 | 136.0774 | 114.0178 | 111.5934 | -0.7748633 | 110.7403 | 110.475  | 111.0971 | 57.1 | 30.5 | 109.2697 | 11.5 | 66.9 | 64.7248  | 8.8 | 39.3 | 157.3515 | 42.4 | 108.1 | 113.9303 | 44.5 | 153.2 | 111.4004 |
| 29.953333 | 35.31894 | 136.0774 | 114.0154 | 108.2536 | -0.7749322 | 110.2812 | 110.3892 | 110.4599 | 57.1 | 30.5 | 108.2156 | 11.5 | 66.9 | 85.4544  | 8.8 | 39.3 | 149.2314 | 42.4 | 108.1 | 113.9396 | 44.5 | 153.2 | 110.0124 |
| 29.956667 | 35.31894 | 136.0774 | 114.019  | 108.7512 | -0.7750099 | 111.702  | 112.4384 | 112.2523 | 57.1 | 30.5 | 111.2581 | 11.5 | 66.9 | 98.5809  | 8.8 | 39.3 | 145.1955 | 42.4 | 108.1 | 113.7937 | 44.5 | 153.2 | 109.869  |
| 29.96     | 35.31894 | 136.0774 | 114.0198 | 110.7483 | -0.775098  | 112.2812 | 112.8892 | 112.8673 | 57   | 30.5 | 112.3467 | 11.5 | 66.9 | 98.6871  | 8.8 | 39.3 | 138.093  | 42.4 | 108.1 | 113.6726 | 44.5 | 153.2 | 110.7698 |
| 29.963333 | 35.31894 | 136.0774 | 114.0073 | 112.6575 | -0.7751842 | 113.1786 | 114.0154 | 114.0734 | 57   | 30.5 | 114.411  | 11.5 | 66.9 | 102.1993 | 8.8 | 39.3 | 131.2115 | 42.4 | 108.1 | 113.5512 | 44.5 | 153.2 | 111.0985 |
| 29.966667 | 35.31894 | 136.0774 | 114.0173 | 112.4048 | -0.7752677 | 112.5266 | 113.2094 | 113.3122 | 57   | 30.5 | 113.2527 | 11.5 | 66.9 | 103.0015 | 8.8 | 39.3 | 125.4621 | 42.4 | 108.1 | 113.4042 | 44.5 | 153.2 | 110.8293 |
| 29.97     | 35.31894 | 136.0774 | 114.0137 | 114.6365 | -0.7753533 | 113.8945 | 114.6655 | 114.8544 | 57   | 30.5 | 115.8373 | 11.5 | 66.9 | 103.452  | 8.8 | 39.3 | 124.3628 | 42.4 | 108.1 | 113.334  | 44.5 | 153.2 | 111.9779 |
| 29.973333 | 35.31894 | 136.0774 | 114.0135 | 112.5479 | -0.7754319 | 112.5258 | 112.9348 | 113.0017 | 57   | 30.5 | 112.6816 | 11.5 | 66.9 | 108.4474 | 8.8 | 39.3 | 117.2475 | 42.4 | 108.1 | 113.4969 | 44.5 | 153.2 | 111.5091 |
| 29.976667 | 35.31895 | 136.0774 | 114.0069 | 115.5512 | -0.7755225 | 113.533  | 113.9655 | 114.2916 | 57   | 30.5 | 114.5167 | 11.5 | 66.9 | 107.0605 | 8.8 | 39.3 | 109.5559 | 42.4 | 108.1 | 113.9433 | 44.5 | 153.2 | 112.4581 |
| 29.98     | 35.31895 | 136.0774 | 114.0169 | 114.8549 | -0.7756057 | 112.5208 | 112.4647 | 112.8548 | 57   | 30.5 | 111.9634 | 11.5 | 66.9 | 105.9353 | 8.8 | 39.3 | 104.25   | 42.4 | 108.1 | 114.2338 | 44.5 | 153.2 | 112.6603 |
| 29.983333 | 35.31895 | 136.0774 | 114.0091 | 116.5575 | -0.7756933 | 112.8926 | 112.9749 | 113.5626 | 57   | 30.5 | 113.0078 | 11.5 | 66.9 | 102.7138 | 8.8 | 39.3 | 101.3244 | 42.4 | 108.1 | 114.4208 | 44.5 | 153.2 | 112.6881 |
| 29.986667 | 35.31895 | 136.0774 | 114.0151 | 115.9004 | -0.7757761 | 112.0093 | 111.8851 | 112.5402 | 57   | 30.5 | 111.036  | 11.5 | 66.9 | 100.5402 | 8.8 | 39.3 | 98.7416  | 42.4 | 108.1 | 114.867  | 44.5 | 153.2 | 112.3178 |
| 29.99     | 35.31895 | 136.0774 | 114.0221 | 115.1279 | -0.7758585 | 111.077  | 110.7874 | 111.5067 | 57   | 30.5 | 109.2308 | 11.5 | 66.9 | 97.3117  | 8.8 | 39.3 | 98.0812  | 42.4 | 108.1 | 115.0275 | 44.5 | 153.2 | 111.7967 |
| 29.993333 | 35.31895 | 136.0774 | 114.0198 | 114.2748 | -0.7759389 | 110.5393 | 110.0825 | 110.7632 | 57   | 30.5 | 107.9031 | 11.5 | 66.9 | 98.1044  | 8.8 | 39.3 | 96.7449  | 42.4 | 108.1 | 115.1876 | 44.5 | 153.2 | 111.6746 |
| 29.996667 | 35.31895 | 136.0774 | 114.0109 | 117.9533 | -0.7760295 | 11       |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |    |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 30.003333 | 35.31895 | 136.0774 | 113.98   | 120.9296 | -0.7762024 | 113.0781 | 114.1818 | 115.4201 | 57 | 30.5 | 115.6289 | 11.5 | 66.9 | 91.4802  | 8.8 | 39.3 | 91.4636  | 42.4 | 108.1 | 115.0972 | 44.5 | 153.3 | 110.3344 |
| 30.006667 | 35.31895 | 136.0774 | 113.9796 | 121.0707 | -0.7762856 | 112.8936 | 113.953  | 115.2434 | 57 | 30.5 | 115.4021 | 11.5 | 66.9 | 90.2586  | 8.8 | 39.3 | 90.3444  | 42.4 | 108.1 | 114.998  | 44.5 | 153.3 | 110.2601 |
| 30.01     | 35.31895 | 136.0774 | 113.9797 | 121.2704 | -0.7763707 | 112.3301 | 113.1928 | 114.5833 | 57 | 30.5 | 115.4676 | 11.5 | 66.8 | 86.328   | 8.8 | 39.3 | 90.0186  | 42.4 | 108.1 | 113.2153 | 44.5 | 153.3 | 110.1855 |
| 30.013333 | 35.31895 | 136.0774 | 113.9632 | 121.9139 | -0.7764525 | 112.9617 | 114.1187 | 115.5286 | 57 | 30.5 | 116.0519 | 11.5 | 66.8 | 87.289   | 8.8 | 39.3 | 89.9227  | 42.4 | 108.1 | 114.719  | 44.5 | 153.3 | 110.0856 |
| 30.016667 | 35.31895 | 136.0774 | 113.9772 | 121.9352 | -0.7765335 | 113.1406 | 114.3598 | 115.7248 | 57 | 30.5 | 116.6569 | 11.5 | 66.8 | 88.7718  | 8.8 | 39.3 | 90.275   | 42.4 | 108.1 | 114.2828 | 44.5 | 153.3 | 110.1101 |
| 30.02     | 35.31895 | 136.0774 | 113.9805 | 120.6139 | -0.7766137 | 112.1671 | 112.9849 | 114.2685 | 57 | 30.5 | 115.6804 | 11.5 | 66.8 | 88.6843  | 8.8 | 39.3 | 90.7401  | 42.4 | 108.1 | 112.0845 | 44.5 | 153.3 | 110.1343 |
| 30.023333 | 35.31895 | 136.0774 | 113.9709 | 120.8544 | -0.7766934 | 112.8458 | 113.927  | 115.1876 | 57 | 30.5 | 115.5362 | 11.5 | 66.8 | 90.5125  | 8.8 | 39.3 | 91.3179  | 42.4 | 108.1 | 114.6483 | 44.5 | 153.3 | 110.1582 |
| 30.026667 | 35.31895 | 136.0774 | 113.9725 | 121.7701 | -0.7767759 | 113.6016 | 115.0175 | 116.3103 | 57 | 30.5 | 116.6809 | 11.5 | 66.8 | 91.0331  | 8.8 | 39.3 | 91.7834  | 42.4 | 108.1 | 115.737  | 44.5 | 153.3 | 110.0819 |
| 30.03     | 35.31895 | 136.0774 | 113.9773 | 120.5283 | -0.776856  | 112.7134 | 113.7727 | 114.9637 | 57 | 30.5 | 116.203  | 11.5 | 66.8 | 91.8128  | 8.8 | 39.3 | 92.1333  | 42.4 | 108.1 | 113.0467 | 44.5 | 153.3 | 110.0801 |
| 30.033333 | 35.31895 | 136.0774 | 113.9954 | 120.1648 | -0.7769372 | 112.4615 | 113.3805 | 114.5348 | 57 | 30.5 | 116.3494 | 11.5 | 66.8 | 91.4553  | 8.8 | 39.3 | 93.5029  | 42.4 | 108.1 | 111.7277 | 44.5 | 153.3 | 110.1771 |
| 30.036667 | 35.31895 | 136.0774 | 113.9961 | 118.3867 | -0.7770161 | 111.3128 | 111.7807 | 112.7739 | 57 | 30.5 | 115.8083 | 11.5 | 66.8 | 92.9308  | 8.8 | 39.3 | 94.6495  | 42.4 | 108.1 | 108.0799 | 44.5 | 153.3 | 110.1497 |
| 30.04     | 35.31895 | 136.0774 | 114.0109 | 118.5063 | -0.7770966 | 111.7108 | 112.3597 | 113.3265 | 57 | 30.5 | 116.0996 | 11.5 | 66.8 | 93.882   | 8.8 | 39.3 | 95.9058  | 42.4 | 108.1 | 109.0366 | 44.5 | 153.3 | 110.0977 |
| 30.043333 | 35.31895 | 136.0774 | 114.0158 | 116.9071 | -0.7771765 | 110.5185 | 110.679  | 111.4915 | 57 | 30.5 | 116.2238 | 11.5 | 66.8 | 94.832   | 8.8 | 39.3 | 97.3862  | 42.4 | 108.1 | 104.171  | 44.5 | 153.3 | 110.1196 |
| 30.046667 | 35.31895 | 136.0774 | 114.0264 | 117.6611 | -0.7772572 | 111.5018 | 112.0094 | 112.8575 | 57 | 30.5 | 116.1813 | 11.5 | 66.8 | 95.1703  | 8.8 | 39.3 | 98.6401  | 42.4 | 108.1 | 107.7159 | 44.5 | 153.3 | 110.2402 |
| 30.05     | 35.31895 | 136.0774 | 114.0315 | 117.7885 | -0.7773371 | 112.0313 | 112.7333 | 113.5715 | 57 | 30.5 | 115.7845 | 11.5 | 66.8 | 95.9402  | 8.8 | 39.3 | 99.7753  | 42.4 | 108.1 | 110.1482 | 44.5 | 153.3 | 110.2863 |
| 30.053333 | 35.31895 | 136.0774 | 114.0314 | 117.5401 | -0.7774182 | 111.9244 | 112.5452 | 113.3329 | 57 | 30.5 | 116.1791 | 11.5 | 66.8 | 96.714   | 8.8 | 39.3 | 100.4588 | 42.4 | 108.1 | 108.9299 | 44.5 | 153.3 | 110.3813 |
| 30.056667 | 35.31895 | 136.0774 | 114.0418 | 118.0978 | -0.7774992 | 112.6468 | 113.54   | 114.3413 | 57 | 30.5 | 116.5518 | 11.5 | 66.8 | 96.9586  | 8.8 | 39.3 | 102.0486 | 42.4 | 108.1 | 110.9219 | 44.5 | 153.3 | 110.4267 |
| 30.06     | 35.31895 | 136.0774 | 114.0479 | 117.9299 | -0.7775783 | 113.0549 | 114.0642 | 114.8186 | 57 | 30.5 | 116.0505 | 11.5 | 66.8 | 98.4254  | 8.8 | 39.3 | 103.2978 | 42.4 | 108.1 | 112.9128 | 44.5 | 153.3 | 110.5459 |
| 30.063333 | 35.31895 | 136.0774 | 114.051  | 118.0623 | -0.7776581 | 113.6213 | 114.8904 | 115.638  | 57 | 30.5 | 115.6943 | 11.5 | 66.8 | 98.9303  | 8.8 | 39.3 | 105.003  | 42.4 | 108.1 | 115.5509 | 44.5 | 153.3 | 110.4667 |
| 30.066667 | 35.31895 | 136.0774 | 114.0367 | 118.0989 | -0.7777382 | 114.0082 | 115.4954 | 116.2228 | 57 | 30.5 | 115.6716 | 11.5 | 66.8 | 99.6116  | 8.8 | 39.3 | 106.4752 | 42.4 | 108.1 | 117.0756 | 44.5 | 153.3 | 110.3115 |
| 30.07     | 35.31895 | 136.0774 | 114.0359 | 117.3775 | -0.7778195 | 113.3768 | 114.6326 | 115.3254 | 57 | 30.5 | 114.8153 | 11.5 | 66.8 | 100.4643 | 8.8 | 39.3 | 104.4143 | 42.4 | 108.1 | 116.1145 | 44.5 | 153.3 | 110.2551 |
| 30.073333 | 35.31895 | 136.0774 | 114.0351 | 116.606  | -0.7778944 | 114.1363 | 115.75   | 116.2905 | 57 | 30.5 | 114.8331 | 11.5 | 66.8 | 101.3134 | 8.8 | 39.3 | 113.5269 | 42.4 | 108.1 | 118.5449 | 44.5 | 153.3 | 110.1249 |
| 30.076667 | 35.31895 | 136.0774 | 114.0415 | 111.3266 | -0.7779506 | 114.5766 | 116.37   | 116.1831 | 57 | 30.5 | 114.8096 | 11.5 | 66.8 | 102.0761 | 8.8 | 39.3 | 149.8967 | 42.4 | 108.1 | 118.3077 | 44.5 | 153.3 | 110.1185 |
| 30.08     | 35.31895 | 136.0774 | 114.0307 | 107.6622 | -0.7780161 | 114.5471 | 116.3214 | 115.6538 | 57 | 30.5 | 114.5765 | 11.5 | 66.8 | 102.8376 | 8.8 | 39.3 | 172.2494 | 42.4 | 108.1 | 117.3204 | 44.5 | 153.3 | 110.1366 |
| 30.083333 | 35.31895 | 136.0774 | 114.0365 | 104.4519 | -0.7780863 | 113.9365 | 115.4982 | 114.4323 | 57 | 30.5 | 114.7599 | 11.5 | 66.8 | 103.5979 | 8.8 | 39.3 | 188.4445 | 42.4 | 108.1 | 113.9256 | 44.5 | 153.3 | 110.0546 |
| 30.086667 | 35.31895 | 136.0774 | 114.0178 | 103.9735 | -0.7781656 | 113.9922 | 115.4693 | 114.2757 | 57 | 30.5 | 114.6729 | 11.5 | 66.8 | 109.1595 | 8.8 | 39.3 | 185.2447 | 42.4 | 108.1 | 113.6613 | 44.5 | 153.3 | 110.3202 |
| 30.09     | 35.31895 | 136.0774 | 114.0133 | 105.2383 | -0.7782557 | 113.3558 | 114.5297 | 113.4783 | 57 | 30.5 | 114.5851 | 11.5 | 66.8 | 115.1524 | 8.8 | 39.3 | 165.4934 | 42.4 | 108.1 | 111.7662 | 44.5 | 153.3 | 110.4378 |
| 30.093333 | 35.31895 | 136.0774 | 114.0048 | 109.1531 | -0.7783526 | 113.8662 | 115.2389 | 114.6847 | 57 | 30.5 | 114.767  | 11.5 | 66.8 | 113.2926 | 8.8 | 39.3 | 145.9641 | 42.4 | 108.1 | 114.5575 | 44.5 | 153.3 | 110.4539 |
| 30.096667 | 35.31895 | 136.0774 | 114.0063 | 113.4741 | -0.7784573 | 113.0048 | 114.0143 | 114.1565 | 57 | 30.5 | 114.6375 | 11.5 | 66.8 | 106.1918 | 8.8 | 39.3 | 120.2625 | 42.4 | 108.1 | 113.4124 | 44.5 | 153.3 | 110.4953 |
| 30.1      | 35.31895 | 136.0774 | 113.9941 | 111.7852 | -0.7785288 | 113.6066 | 114.8517 | 114.674  | 57 | 30.5 | 114.7574 | 11.5 | 66.8 | 111.7457 | 8.8 | 39.3 | 128.9169 | 42.4 | 108.1 | 114.5451 | 44.5 | 153.3 | 110.5114 |
| 30.103333 | 35.31895 | 136.0774 | 113.9903 | 107.2129 | -0.7785889 | 113.8811 | 115.3405 | 114.3864 | 57 | 30.5 | 114.6059 | 11.5 | 66.8 | 128.2975 | 8.8 | 39.3 | 140.5428 | 42.4 | 108.1 | 114.0469 | 44.5 | 153.3 | 110.2535 |
| 30.106667 | 35.31895 | 136.0774 | 113.9976 | 103.2095 | -0.7786493 | 114.663  | 116.4611 | 114.7513 | 57 | 30.5 | 114.4749 | 11.5 | 66.8 | 146.5932 | 8.8 | 39.3 | 149.8864 | 42.4 | 108.1 | 115.1789 | 44.5 | 153.3 | 110.1934 |
| 30.11     | 35.31895 | 136.0774 | 114.0021 | 103.584  | -0.7787335 | 114.4793 | 116.1774 | 114.5058 | 57 | 30.5 | 114.6775 | 11.5 | 66.8 | 147.8681 | 8.8 | 39.3 | 145.0672 | 42.4 | 108.1 | 114.2401 | 44.5 | 153.3 | 110.2584 |
| 30.113333 | 35.31895 | 136.0774 | 114.0076 | 106.2602 | -0.7788266 | 114.5752 | 116.346  | 115.0243 | 57 | 30.5 | 114.8166 | 11.5 | 66.8 | 147.3061 | 8.8 | 39.3 | 129.1658 | 42.4 | 108.1 | 115.3455 | 44.5 | 153.3 | 110.1734 |
| 30.116667 | 35.31895 | 136.0774 | 114.022  | 109.8634 | -0.7789264 | 114.1223 | 115.7452 | 115.0351 | 57 | 30.5 | 114.8726 | 11.5 | 66.8 | 136.6198 | 8.8 | 39.3 | 115.4257 | 42.4 | 108.1 | 115.2866 | 44.5 | 153.3 | 110.0881 |
| 30.12     | 35.31895 | 136.0774 | 114.0292 | 114.9651 | -0.7790329 | 113.6322 | 115.0921 | 115.1696 | 57 | 30.5 | 114.8651 | 11.5 | 66.8 | 128.4661 | 8.8 | 39.3 | 88.5452  | 42.4 | 108.2 | 115.6406 | 44.5 | 153.3 | 110.0031 |
| 30.123333 | 35.31895 | 136.0774 | 114.0459 | 117.5835 | -0.7791299 | 112.8209 | 113.9392 | 114.5797 | 57 | 30.5 | 114.9205 | 11.5 | 66.8 | 111.6668 | 8.8 | 39.3 | 86.109   | 42.4 | 108.2 | 114.0525 | 44.5 | 153.3 | 110.0411 |
| 30.126667 | 35.31895 | 136.0774 | 114.0496 | 114.9188 | -0.7791976 | 113.293  | 114.5957 | 114.7268 | 57 | 30.5 | 114.8504 | 11.5 | 66.8 | 124.5418 | 8.8 | 39.3 | 91.2157  | 42.4 | 108.2 | 114.5357 | 44.5 | 153.3 | 110.0546 |
| 30.13     | 35.31895 | 136.0774 | 114.0581 | 115.788  | -0.7792843 | 113.0279 | 114.3389 | 114.6252 | 57 | 30.5 | 114.6554 | 11.5 | 66.8 | 123.542  | 8.8 | 39.3 | 84.5444  | 42.4 | 108.2 | 114.5784 | 44.5 | 153.3 | 109.7691 |
| 30.133333 | 35.31895 | 136.0774 | 114.0619 | 114.4131 | -0.7793604 | 112.9127 | 114.1723 | 114.2155 | 57 | 30.5 | 114.5228 | 11.5 | 66.8 | 130.6527 | 8.8 | 39.3 | 84.0445  | 42.4 | 108.2 | 113.7401 | 44.5 | 153.3 | 109.7818 |
| 30.136667 | 35.31895 | 136.0774 | 114.0563 | 114.205  | -0.7794405 | 113.0362 | 114.3805 | 114.3638 | 57 | 30.5 | 114.5556 | 11.5 | 66.8 | 133.226  | 8.8 | 39.3 | 83.2022  | 42.4 | 108.2 | 114.0671 | 44.5 | 153.3 | 109.6945 |
| 30.14     | 35.31895 | 136.0774 | 114.0607 | 116.1854 | -0.7795326 | 112.6925 | 113.9636 | 114.3116 | 57 | 30.6 | 114.4432 | 11.5 | 66.8 | 125.9366 | 8.8 | 39.3 | 76.411   | 42.4 | 108.2 | 114.1081 | 44.5 | 153.3 | 109.5327 |
| 30.143333 | 35.31895 | 136.0774 | 114.0594 | 116.108  | -0.7796143 | 112.5903 | 113.7857 | 114.1905 | 57 | 30.6 | 114.2674 | 11.5 | 66.8 | 120.3916 | 8.8 | 39.3 | 82.5379  | 42.4 | 108.2 | 114.0716 | 44.5 | 153.3 | 109.6186 |
| 30.146667 | 35.31895 | 136.0774 | 114.0622 | 116.9297 | -0.7797007 | 112.3653 | 113.4757 | 114.0518 | 57 | 30.6 | 114.0292 | 11.5 | 66.8 | 116.4183 | 8.8 | 39.3 | 79.973   | 42.4 | 108.2 | 114.0867 | 44.5 | 153.3 | 109.6051 |
| 30.15     | 35.31895 | 136.0774 | 114.0603 | 115.9186 | -0.7797773 | 112.4742 | 113.6441 | 114.0363 | 57 | 30.6 | 113.978  | 11.5 | 66.8 | 120.9922 | 8.8 | 39.3 | 81.7557  | 42.4 | 108.2 | 114.1266 | 44.5 | 153.3 | 109.5663 |
| 30.153333 | 35.31895 | 136.0774 |          |          |            |          |          |          |    |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 30.16     | 35.31895 | 136.0774 | 114.0487 | 115.5683 | -0.7800231 | 111.9501 | 113.177  | 113.5806 | 57   | 30.6 | 113.6361 | 11.5 | 66.8 | 121.3605 | 8.8 | 39.3 | 79.3058  | 42.4 | 108.2 | 113.4948 | 44.5 | 153.3 | 108.9005 |
| 30.163333 | 35.31895 | 136.0774 | 114.0514 | 115.6017 | -0.7801068 | 111.5147 | 112.7826 | 113.2478 | 57   | 30.6 | 113.2302 | 11.5 | 66.8 | 121.1317 | 8.8 | 39.3 | 75.5864  | 42.4 | 108.2 | 113.2751 | 44.5 | 153.3 | 108.3629 |
| 30.166667 | 35.31895 | 136.0774 | 114.0455 | 115.5438 | -0.7801883 | 111.4871 | 112.7501 | 113.2135 | 57   | 30.6 | 113.1149 | 11.5 | 66.8 | 121.1667 | 8.8 | 39.3 | 75.5283  | 42.4 | 108.2 | 113.366  | 44.5 | 153.3 | 108.3474 |
| 30.17     | 35.31895 | 136.0774 | 114.047  | 116.4998 | -0.7802757 | 111.1572 | 112.3681 | 113.0522 | 57   | 30.6 | 112.8748 | 11.5 | 66.8 | 115.176  | 8.8 | 39.3 | 73.753   | 42.4 | 108.2 | 113.3266 | 44.6 | 153.3 | 108.1576 |
| 30.173333 | 35.31895 | 136.0774 | 114.0476 | 115.5925 | -0.7803538 | 111.0579 | 112.2857 | 112.8569 | 57   | 30.6 | 112.6964 | 11.5 | 66.8 | 116.0787 | 8.8 | 39.3 | 77.583   | 42.4 | 108.2 | 113.1051 | 44.6 | 153.3 | 108.0167 |
| 30.176667 | 35.31895 | 136.0774 | 114.043  | 116.8932 | -0.7804346 | 112.4432 | 112.4432 | 112.9738 | 57   | 30.6 | 112.8308 | 11.5 | 66.8 | 115.323  | 8.8 | 39.3 | 81.3009  | 42.4 | 108.2 | 113.1949 | #N/A | #N/A  | #N/A     |
| 30.18     | 35.31895 | 136.0774 | 114.0303 | 116.4379 | -0.7805143 | 112.442  | 112.442  | 112.9045 | 57   | 30.6 | 112.777  | 11.5 | 66.8 | 116.4833 | 8.8 | 39.3 | 82.7274  | 42.3 | 108.2 | 113.1026 | #N/A | #N/A  | #N/A     |
| 30.183333 | 35.31895 | 136.0774 | 114.0336 | 117.9679 | -0.7805967 | 113.8892 | 112.392  | 112.8527 | 57   | 30.6 | 112.785  | 11.5 | 66.8 | 115.5502 | 8.8 | 39.3 | 84.2644  | 42.3 | 108.2 | 112.9579 | 44.6 | 153.3 | 117.5927 |
| 30.186667 | 35.31895 | 136.0774 | 114.0259 | 115.5983 | -0.7806765 | 111.9375 | 112.2933 | 112.7585 | 57   | 30.6 | 112.6896 | 11.5 | 66.8 | 113.4812 | 8.8 | 39.3 | 87.2908  | 42.3 | 108.2 | 112.8656 | 44.6 | 153.3 | 111.0574 |
| 30.19     | 35.31895 | 136.0774 | 114.0095 | 110.6386 | -0.7807547 | 107.7314 | 112.0757 | 112.5415 | 57   | 30.6 | 112.5097 | 11.5 | 66.8 | 111.6736 | 8.8 | 39.3 | 89.7451  | 42.3 | 108.2 | 112.591  | 44.6 | 153.3 | 96.9858  |
| 30.193333 | 35.31895 | 136.0774 | 114.0108 | 111.1454 | -0.7808343 | 108.712  | 111.9215 | 112.2993 | 57   | 30.6 | 112.2885 | 11.5 | 66.8 | 111.8694 | 8.8 | 39.3 | 93.3445  | 42.3 | 108.2 | 112.3161 | 44.6 | 153.3 | 100.7735 |
| 30.196667 | 35.31895 | 136.0774 | 114.0031 | 114.7343 | -0.7809168 | 112.1122 | 111.7663 | 112.0871 | 57   | 30.6 | 112.1504 | 11.5 | 66.8 | 112.2415 | 8.8 | 39.3 | 95.1076  | 42.3 | 108.2 | 111.9889 | 44.6 | 153.3 | 112.9677 |
| 30.2      | 35.31895 | 136.0774 | 113.9991 | 113.764  | -0.7809974 | 111.3676 | 111.5728 | 111.8773 | 57   | 30.6 | 111.9494 | 11.5 | 66.8 | 111.9125 | 8.8 | 39.3 | 95.9531  | 42.3 | 108.2 | 111.7653 | 44.6 | 153.3 | 110.8599 |
| 30.203333 | 35.31895 | 136.0774 | 113.9877 | 112.5157 | -0.781076  | 110.8041 | 111.5537 | 111.7628 | 57   | 30.6 | 111.9557 | 11.5 | 66.8 | 113.4169 | 8.8 | 39.3 | 98.0588  | 42.3 | 108.2 | 111.4633 | 44.6 | 153.3 | 108.9499 |
| 30.206667 | 35.31895 | 136.0774 | 113.981  | 113.3109 | -0.7811579 | 111.5459 | 111.5073 | 111.7143 | 57   | 30.6 | 112.0041 | 11.5 | 66.8 | 112.3009 | 8.8 | 39.3 | 99.9335  | 42.3 | 108.2 | 111.2642 | 44.6 | 153.3 | 111.6414 |
| 30.21     | 35.31895 | 136.0774 | 113.9767 | 113.1325 | -0.7812387 | 111.5488 | 111.4891 | 111.6733 | 57   | 30.6 | 112.0313 | 11.5 | 66.8 | 111.966  | 8.8 | 39.3 | 101.5772 | 42.3 | 108.2 | 111.1174 | 44.6 | 153.3 | 111.6964 |
| 30.213333 | 35.31895 | 136.0774 | 113.9711 | 112.7887 | -0.7813194 | 111.4079 | 111.5712 | 111.7403 | 57   | 30.6 | 112.0368 | 11.5 | 66.8 | 111.6349 | 8.8 | 39.3 | 103.1081 | 42.3 | 108.2 | 111.2798 | 44.6 | 153.3 | 111.0041 |
| 30.216667 | 35.31895 | 136.0774 | 113.9641 | 111.6343 | -0.7813979 | 110.9659 | 111.6832 | 111.7672 | 57   | 30.6 | 112.0426 | 11.5 | 66.8 | 112.1723 | 8.7 | 39.3 | 106.5869 | 42.3 | 108.2 | 111.3395 | 44.6 | 153.3 | 109.1926 |
| 30.22     | 35.31895 | 136.0774 | 113.9544 | 110.8853 | -0.7814769 | 110.7932 | 111.8111 | 111.8267 | 57   | 30.6 | 112.1525 | 11.5 | 66.8 | 112.3612 | 8.7 | 39.3 | 110.0652 | 42.3 | 108.2 | 111.3208 | 44.6 | 153.3 | 108.2766 |
| 30.223333 | 35.31895 | 136.0774 | 113.9502 | 109.5875 | -0.7815556 | 110.1575 | 111.8326 | 111.7413 | 57   | 30.6 | 112.1577 | 11.5 | 66.8 | 115.685  | 8.7 | 39.3 | 109.752  | 42.3 | 108.2 | 111.0947 | 44.6 | 153.3 | 106.0162 |
| 30.226667 | 35.31895 | 136.0774 | 113.9438 | 109.2432 | -0.7816396 | 109.2879 | 111.9274 | 111.8149 | 57   | 30.6 | 112.2247 | 11.5 | 66.8 | 126.0767 | 8.7 | 39.3 | 93.0319  | 42.3 | 108.2 | 111.1785 | 44.6 | 153.3 | 102.7621 |
| 30.23     | 35.31895 | 136.0774 | 113.9456 | 111.2936 | -0.7817317 | 108.9891 | 111.5168 | 111.762  | 57   | 30.6 | 112.1667 | 11.5 | 66.8 | 119.37   | 8.7 | 39.3 | 85.4845  | 42.3 | 108.2 | 111.1335 | 44.6 | 153.3 | 102.7395 |
| 30.233333 | 35.31895 | 136.0774 | 113.9353 | 111.2207 | -0.7818121 | 109.1883 | 111.6378 | 111.8598 | 56.9 | 30.6 | 112.2749 | 11.5 | 66.8 | 118.2447 | 8.7 | 39.3 | 88.9556  | 42.3 | 108.2 | 111.2167 | 44.6 | 153.3 | 103.14   |
| 30.236667 | 35.31895 | 136.0774 | 113.9241 | 112.7685 | -0.7819014 | 109.0128 | 111.2896 | 111.7556 | 56.9 | 30.6 | 112.0499 | 11.5 | 66.8 | 115.2866 | 8.7 | 39.3 | 80.8301  | 42.3 | 108.2 | 111.2995 | 44.6 | 153.3 | 103.3911 |
| 30.24     | 35.31895 | 136.0774 | 113.925  | 114.5909 | -0.7819946 | 108.2256 | 110.6362 | 111.5039 | 56.9 | 30.6 | 111.7829 | 11.5 | 66.8 | 107.7951 | 8.7 | 39.3 | 71.7796  | 42.3 | 108.2 | 111.0716 | 44.6 | 153.3 | 102.2736 |
| 30.243333 | 35.31895 | 136.0774 | 113.9235 | 114.3058 | -0.7820743 | 108.3673 | 110.7136 | 111.5002 | 56.9 | 30.6 | 111.7238 | 11.5 | 66.8 | 110.5918 | 8.7 | 39.3 | 71.2279  | 42.3 | 108.2 | 111.1537 | 44.6 | 153.3 | 102.574  |
| 30.246667 | 35.31895 | 136.0774 | 113.9146 | 114.9581 | -0.7821582 | 108.5014 | 110.5487 | 111.4257 | 56.9 | 30.6 | 111.5815 | 11.5 | 66.8 | 107.6281 | 8.7 | 39.3 | 71.3622  | 42.3 | 108.2 | 111.1842 | 44.6 | 153.3 | 103.4462 |
| 30.25     | 35.31895 | 136.0774 | 113.9208 | 115.5422 | -0.7822417 | 108.6658 | 110.5077 | 111.4313 | 56.9 | 30.6 | 111.6882 | 11.5 | 66.7 | 107.4592 | 8.7 | 39.3 | 69.1944  | 42.3 | 108.2 | 111.0332 | 44.6 | 153.3 | 104.1179 |
| 30.253333 | 35.31895 | 136.0774 | 113.914  | 115.8719 | -0.782326  | 108.3992 | 110.3545 | 111.4261 | 56.9 | 30.6 | 111.7112 | 11.5 | 66.7 | 100.396  | 8.7 | 39.3 | 73.5752  | 42.3 | 108.2 | 110.9843 | 44.6 | 153.3 | 103.5713 |
| 30.256667 | 35.31895 | 136.0774 | 113.9059 | 115.0855 | -0.7824035 | 108.5284 | 110.264  | 111.1754 | 56.9 | 30.6 | 111.4637 | 11.5 | 66.7 | 104.2347 | 8.7 | 39.3 | 74.7424  | 42.3 | 108.2 | 110.7286 | 44.6 | 153.3 | 104.243  |
| 30.26     | 35.31895 | 136.0774 | 113.9011 | 115.1515 | -0.7824855 | 108.5138 | 110.3745 | 111.2744 | 56.9 | 30.6 | 111.5911 | 11.5 | 66.7 | 106.5881 | 8.7 | 39.3 | 71.5355  | 42.3 | 108.2 | 110.7837 | 44.6 | 153.3 | 103.9195 |
| 30.263333 | 35.31895 | 136.0774 | 113.8899 | 115.4793 | -0.7825697 | 108.2564 | 110.1237 | 111.1191 | 56.9 | 30.6 | 111.3841 | 11.5 | 66.7 | 104.4059 | 8.7 | 39.3 | 69.8214  | 42.3 | 108.2 | 110.7085 | 44.6 | 153.3 | 103.6456 |
| 30.266667 | 35.31895 | 136.0774 | 113.8815 | 116.132  | -0.7826534 | 108.4359 | 109.8925 | 110.9893 | 56.9 | 30.6 | 111.3027 | 11.5 | 66.7 | 99.17    | 8.7 | 39.3 | 73.1643  | 42.3 | 108.2 | 110.5037 | 44.6 | 153.3 | 104.8393 |
| 30.27     | 35.31895 | 136.0774 | 113.8759 | 114.5172 | -0.7827272 | 108.5807 | 109.9453 | 110.8282 | 56.9 | 30.6 | 111.137  | 11.5 | 66.7 | 98.3846  | 8.7 | 39.3 | 85.47    | 42.3 | 108.2 | 110.3498 | 44.6 | 153.4 | 105.2111 |
| 30.273333 | 35.31895 | 136.0774 | 113.8797 | 116.1127 | -0.7828165 | 108.4539 | 109.637  | 110.7311 | 56.9 | 30.6 | 110.9095 | 11.5 | 66.7 | 98.6399  | 8.7 | 39.3 | 73.5226  | 42.3 | 108.2 | 110.4547 | 44.6 | 153.4 | 105.5326 |
| 30.276667 | 35.31895 | 136.0774 | 113.879  | 116.5444 | -0.7829008 | 108.2767 | 109.4793 | 110.6455 | 56.9 | 30.6 | 110.9513 | 11.5 | 66.7 | 98.5467  | 8.7 | 39.3 | 69.6169  | 42.3 | 108.2 | 110.1717 | 44.6 | 153.4 | 105.3072 |
| 30.28     | 35.31895 | 136.0774 | 113.8816 | 115.6809 | -0.7829777 | 108.463  | 109.601  | 110.5773 | 56.9 | 30.6 | 110.9727 | 11.5 | 66.7 | 103.8554 | 8.7 | 39.3 | 70.3092  | 42.3 | 108.2 | 109.9647 | 44.6 | 153.4 | 105.653  |
| 30.283333 | 35.31895 | 136.0774 | 113.8759 | 116.4466 | -0.7830628 | 108.4468 | 109.3879 | 110.5012 | 56.9 | 30.6 | 110.931  | 11.5 | 66.7 | 99.4035  | 8.7 | 39.3 | 70.5419  | 42.3 | 108.2 | 109.8354 | 44.6 | 153.4 | 106.1231 |
| 30.286667 | 35.31895 | 136.0774 | 113.8761 | 113.71   | -0.783131  | 108.705  | 109.6712 | 110.2248 | 56.9 | 30.6 | 110.66   | 11.5 | 66.7 | 117.4383 | 8.7 | 39.3 | 68.2382  | 42.3 | 108.2 | 109.5505 | 44.6 | 153.4 | 106.3193 |
| 30.29     | 35.31895 | 136.0774 | 113.869  | 114.5322 | -0.7832174 | 108.4505 | 109.2947 | 110.0696 | 56.9 | 30.6 | 110.5552 | 11.5 | 66.7 | 108.3606 | 8.7 | 39.3 | 71.8073  | 42.3 | 108.2 | 109.3172 | 44.6 | 153.4 | 106.3662 |
| 30.293333 | 35.31895 | 136.0774 | 113.8666 | 112.1184 | -0.7832872 | 108.6948 | 109.5085 | 109.8713 | 56.9 | 30.6 | 110.2627 | 11.5 | 66.7 | 116.3688 | 8.7 | 39.3 | 79.2833  | 42.3 | 108.2 | 109.2648 | 44.6 | 153.4 | 106.6857 |
| 30.296667 | 35.31895 | 136.0774 | 113.8531 | 110.6649 | -0.7833631 | 108.5083 | 109.3988 | 109.6143 | 56.9 | 30.6 | 109.9909 | 11.5 | 66.7 | 115.3091 | 8.7 | 39.3 | 88.2569  | 42.3 | 108.2 | 109.0308 | 44.6 | 153.4 | 106.3094 |
| 30.3      | 35.31895 | 136.0774 | 113.8541 | 108.681  | -0.7834356 | 108.5803 | 109.5116 | 109.4636 | 56.9 | 30.6 | 109.7605 | 11.5 | 66.7 | 116.2513 | 8.7 | 39.3 | 100.2262 | 42.3 | 108.2 | 109.0037 | 44.6 | 153.4 | 106.2805 |
| 30.303333 | 35.31895 | 136.0774 | 113.8483 | 107.4304 | -0.7835125 | 108.3869 | 109.3829 | 109.1756 | 56.9 | 30.6 | 109.3215 | 11.5 | 66.7 | 119.2877 | 8.7 | 39.3 | 102.6377 | 42.3 | 108.2 | 108.9495 | 44.6 | 153.4 | 105.9277 |
| 30.306667 | 35.31895 | 136.0774 | 113.8437 | 106.4332 | -0.7835907 | 108.148  | 109.2306 | 108.951  | 56.9 | 30.6 | 108.9867 | 11.5 | 66.7 | 117.4378 | 8.7 | 39.3 | 109.0831 | 42.3 | 108.2 | 108.8957 | 44.6 | 153.4 | 105.4749 |
| 30.31     | 35.31895 | 13       |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |

|           |          |          |          |          |            |          |          |          |      |      |          |      |      |          |     |      |          |      |       |          |      |       |          |
|-----------|----------|----------|----------|----------|------------|----------|----------|----------|------|------|----------|------|------|----------|-----|------|----------|------|-------|----------|------|-------|----------|
| 30.316667 | 35.31895 | 136.0774 | 113.832  | 104.5123 | -0.78383   | 107.4514 | 108.8424 | 108.4307 | 56.9 | 30.6 | 108.4371 | 11.5 | 66.7 | 115.6374 | 8.7 | 39.3 | 117.8129 | 42.3 | 108.2 | 108.4209 | 44.6 | 153.4 | 104.0168 |
| 30.32     | 35.31895 | 136.0774 | 113.8225 | 105.5943 | -0.7839171 | 107.2849 | 108.6212 | 108.4253 | 56.9 | 30.6 | 108.4968 | 11.5 | 66.7 | 109.4279 | 8.7 | 39.3 | 117.1112 | 42.3 | 108.2 | 108.3144 | 44.6 | 153.4 | 103.9852 |
| 30.323333 | 35.31895 | 136.0774 | 113.818  | 107.3093 | -0.7840089 | 106.7123 | 107.9595 | 108.1809 | 56.9 | 30.6 | 108.2644 | 11.6 | 66.7 | 96.5925  | 8.7 | 39.3 | 116.8732 | 42.3 | 108.2 | 108.0515 | 44.6 | 153.4 | 103.6312 |
| 30.326667 | 35.31895 | 136.0774 | 113.8157 | 108.0037 | -0.7840944 | 106.5103 | 107.7187 | 108.1212 | 56.9 | 30.6 | 108.2191 | 11.6 | 66.7 | 89.9443  | 8.7 | 39.3 | 118.8161 | 42.3 | 108.2 | 107.9696 | 44.6 | 153.4 | 103.5248 |
| 30.33     | 35.31895 | 136.0774 | 113.8068 | 108.5147 | -0.7841789 | 106.3662 | 107.5495 | 108.0536 | 56.9 | 30.6 | 108.2779 | 11.6 | 66.7 | 87.5678  | 8.7 | 39.3 | 117.4194 | 42.3 | 108.2 | 107.706  | 44.6 | 153.4 | 103.443  |
| 30.333333 | 35.31895 | 136.0774 | 113.8119 | 109.1196 | -0.7842637 | 106.2436 | 107.4306 | 108.036  | 56.9 | 30.6 | 108.3359 | 11.6 | 66.7 | 86.3213  | 8.7 | 39.3 | 114.1777 | 42.3 | 108.2 | 107.5714 | 44.6 | 153.4 | 103.311  |