

ID N° 25118 - DRT - Surface Tension / Interpol.

Executed on Sep 08, 2026, by M. Breitwieser

Wasser ~65 µL (ganze Kurven, +Abriss) gemessen unter Verdunstungsschutz  
Hamilton 100µL. Probenmenge: 0,0645g, 64,76µL, Oberfl. 21,079, Kachelboden 22,5942 mm.  
(längere Messzeiten sind mit der verwendeten Wägezelle nicht zu empfehlen – da Tara driftet <oder driften könnte;  
,Letztes Lamellengewicht‘ enthält die Drift noch am sichtbarsten > und keine Korrektur oder Prüfung dafür im IMPro  
vorgesehen ist, da 0.000 das Gewicht des trockenen Rings+Aufhängung ist. Diese Messung lief evtl. relativ zu lange)

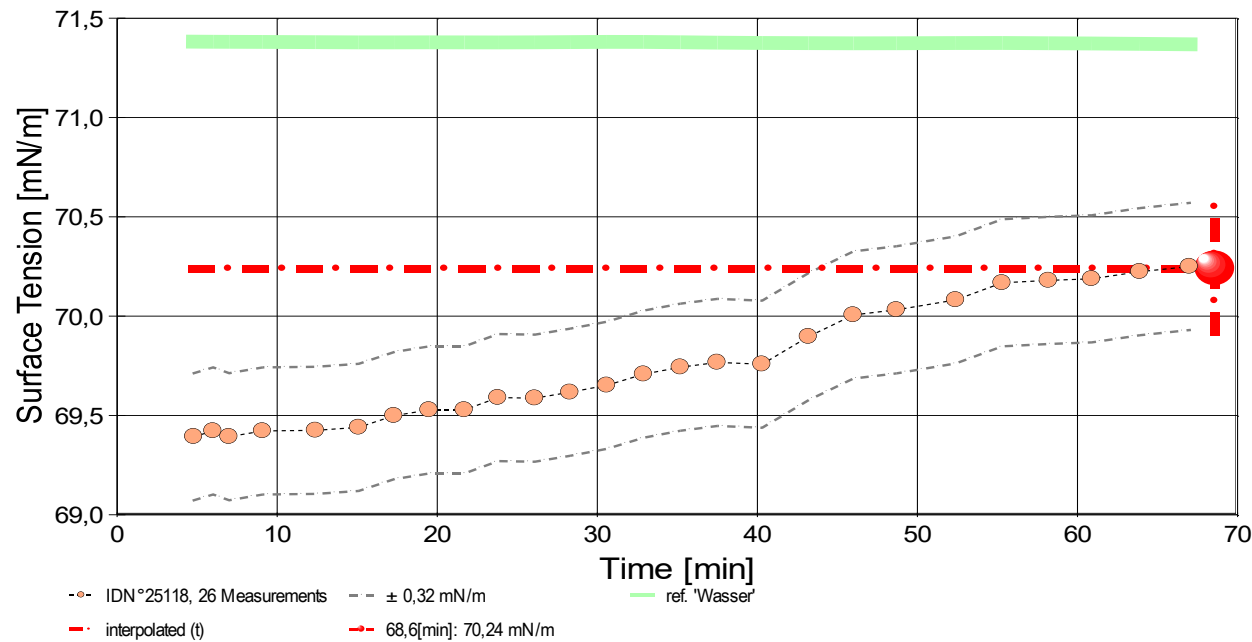
Flüssigkeit/Vergleich: 'Wasser'  
Result:  $\gamma_{28,89^{\circ}\text{C}} = 70,24 \pm 0,32 \text{ mN/m}$

Report

• 3. Ergebniszusammenfassung

26 Messwerte; Zeitbereich 5 bis 67 min, Temperatur  $\Delta T = 0,085 \text{ K}$   
Ergebnis:  $70,24 \pm 0,32$  (Interpolation by time on measurements at 68,6 min)  
[Average: 69,75 mN/m, Standard deviation:  $\pm 0,30 \text{ mN/m}$ ]

→ Diagramm 1. Zeitprojektion der Messwerte - 'Zeitprojektion²'



- Im Diagramm "Zeitprojektion²" sind die einzelnen Messwerte als Kreissymbole in der zeitlichen Reihenfolge eingetragen. Um die Messwerte ist der Bereich der Messunsicherheit eingezeichnet. Der ausgewiesene Angabewert ist als dickere, gestrichelte, waagerechte Linie eingezeichnet. Als gestrichelte Linie werden Datenbank-Referenzwerte von 'Wasser' temperaturkompensiert eingezeichnet.

Tabelle 1: Protokoll der Mess- und Ergebnisdaten

| N° | t<br>[min] | θ<br>[°C] | nPos | ΔZ<br>[mm] | H <sub>γ</sub><br>[mm] | W <sub>γ</sub><br>[mg] | γ<br>[mN/m] | τ <sub>rel.</sub><br>[s] | Δρ<br>[g/cm³] |
|----|------------|-----------|------|------------|------------------------|------------------------|-------------|--------------------------|---------------|
| 1. | 4,8        | 28,800    | 14   | 0,52       | 0,907                  | 243,14                 | 69,39       | 22,4                     | 0,9949        |
| 2. | 6,0        | 28,804    | 15   | 0,56       | 0,907                  | 243,24                 | 69,42       | 25,1                     | 0,9949        |
| 3. | 7,0        | 28,806    | 15   | 0,56       | 0,907                  | 243,14                 | 69,39       | 25,5                     | 0,9949        |
| 4. | 9,1        | 28,809    | 30   | 1,16       | 0,903                  | 243,24                 | 69,42       | 87,2                     | 0,9949        |

|     |      |        |    |      |       |        |       |       |        |
|-----|------|--------|----|------|-------|--------|-------|-------|--------|
| 5.  | 12,4 | 28,817 | 35 | 1,36 | 0,906 | 243,25 | 69,43 | 99,8  | 0,9949 |
| 6.  | 15,1 | 28,823 | 35 | 1,36 | 0,900 | 243,30 | 69,44 | 94,1  | 0,9949 |
| 7.  | 17,3 | 28,823 | 35 | 1,36 | 0,900 | 243,50 | 69,50 | 95,6  | 0,9949 |
| 8.  | 19,5 | 28,822 | 35 | 1,36 | 0,897 | 243,60 | 69,53 | 100,8 | 0,9949 |
| 9.  | 21,7 | 28,824 | 35 | 1,36 | 0,893 | 243,60 | 69,53 | 97,0  | 0,9949 |
| 10. | 23,8 | 28,825 | 35 | 1,36 | 0,891 | 243,82 | 69,59 | 96,9  | 0,9949 |
| 11. | 26,1 | 28,822 | 35 | 1,36 | 0,893 | 243,81 | 69,59 | 101,3 | 0,9949 |
| 12. | 28,3 | 28,815 | 35 | 1,36 | 0,888 | 243,91 | 69,62 | 97,7  | 0,9949 |
| 13. | 30,6 | 28,808 | 35 | 1,36 | 0,887 | 244,03 | 69,65 | 101,4 | 0,9949 |
| 14. | 32,9 | 28,809 | 35 | 1,36 | 0,888 | 244,23 | 69,71 | 103,7 | 0,9949 |
| 15. | 35,2 | 28,819 | 35 | 1,36 | 0,886 | 244,35 | 69,74 | 105,4 | 0,9949 |
| 16. | 37,5 | 28,832 | 35 | 1,36 | 0,887 | 244,43 | 69,77 | 101,1 | 0,9949 |
| 17. | 40,3 | 28,842 | 45 | 1,76 | 0,876 | 244,40 | 69,76 | 139,9 | 0,9949 |
| 18. | 43,2 | 28,848 | 45 | 1,76 | 0,880 | 244,88 | 69,90 | 98,6  | 0,9949 |
| 19. | 46,0 | 28,853 | 45 | 1,76 | 0,875 | 245,26 | 70,01 | 99,6  | 0,9949 |
| 20. | 48,7 | 28,852 | 60 | 2,36 | 0,876 | 245,35 | 70,03 | 99,6  | 0,9949 |
| 21. | 52,4 | 28,844 | 45 | 1,76 | 0,874 | 245,52 | 70,08 | 107,5 | 0,9949 |
| 22. | 55,3 | 28,843 | 45 | 1,76 | 0,868 | 245,82 | 70,17 | 104,4 | 0,9949 |
| 23. | 58,2 | 28,851 | 45 | 1,76 | 0,885 | 245,86 | 70,18 | 107,6 | 0,9949 |
| 24. | 60,9 | 28,859 | 45 | 1,76 | 0,869 | 245,89 | 70,19 | 101,3 | 0,9949 |
| 25. | 63,9 | 28,871 | 45 | 1,76 | 0,867 | 246,01 | 70,22 | 102,5 | 0,9949 |
| 26. | 67,0 | 28,885 | 60 | 2,36 | 0,864 | 246,10 | 70,25 | 114,1 | 0,9949 |

In der Tabelle gibt **t** den Zeitpunkt des Messwertes und **θ** die zugehörige Temperatur an. **n<sub>Pos</sub>** steht für die Anzahl der Kraft/Positionswerte der Messkurvenabtastung über die Strecke **ΔZ**. Die Spalte **H<sub>y</sub>** gibt die Lamellenhöhe im Scheitel der Messkurve über dem Flüssigkeits-Nullniveau an. An dieser Stelle beträgt das Gewicht der Lamelle exakt **W<sub>y</sub>**. Diese Gewichtskraft ist unter den Messumständen proportional zur daraus berechneten Oberflächenspannung **γ**. Die Zeitspanne **τ<sub>rel</sub>** gibt die Dauer beim Auszug der Lamelle bis zum Erreichen des Scheitelpunktes an. In der Spalte **Δρ** ist die Dichtedifferenz (d.h. der Dichte von Wasser abzüglich der Luftdichte) bei der Temperatur angegeben.

#### • 4. Auswertungsverfahren & Messkörper

**Berechnung:** Young-Laplace-Petzoldt (YLP).

**Messsystem:** DRT-ES5/7.25/02, mittlerer Ringradius  $R=2,5$  mm, Drahradius  $r=0,1$  mm, linearer Ausdehnungskoeffizient  $\alpha=8,9 \cdot 10^{-6} \text{K}^{-1}$ ; Innendurchmesser des Messgefäßes  $\varnothing=7,250$  mm, Gefäßvolumen  $0,0645 \text{ cm}^3$ ; Anfangs-Kontaktwinkel an der Dreiphasengrenze  $\theta=90^\circ$ .

**Probensubstanz:** Wasser, kapillare Länge  $a=2,68$  mm, Dichte  $\rho=0,9960 \text{ g/cm}^3$  (bei  $28,887^\circ\text{C}$ ); die Dichtedifferenz  $\Delta\rho$  wird zur jeweiligen Temperatur aus den Referenzangaben berechnet.

- Die geometrischen Angaben zum Messring beziehen sich auf die Bezugstemperatur  $25^\circ\text{C}$ . Von der Flüssigkeitsdichte wird stets die zur Messung vorliegende Luftdichte  $\rho_a$  abgezogen. Die Berechnung der Dichte  $\rho$  zur jeweils vorliegenden Temperatur erfolgt mittels vorhandener Referenzdaten zu Wasser automatisch. Hierzu wird die Gleichung ' $\Delta\rho [\text{g/cm}^3]=f(\theta[^\circ\text{C}])=(99983.952+1695.2577 \cdot \theta-0.79905127 \cdot \theta^2-4.6241757 \text{E-}3 \cdot \theta^3+1.0584601 \text{E-}5 \cdot \theta^4-2.8103006 \text{E-}8 \cdot \theta^5)/(1 \text{E}5+1688.7236 \cdot \theta)-\rho_a$ ' verwendet.

Tabelle 2: Zu Berechnung und Klassifikation der einzelnen Messwerte

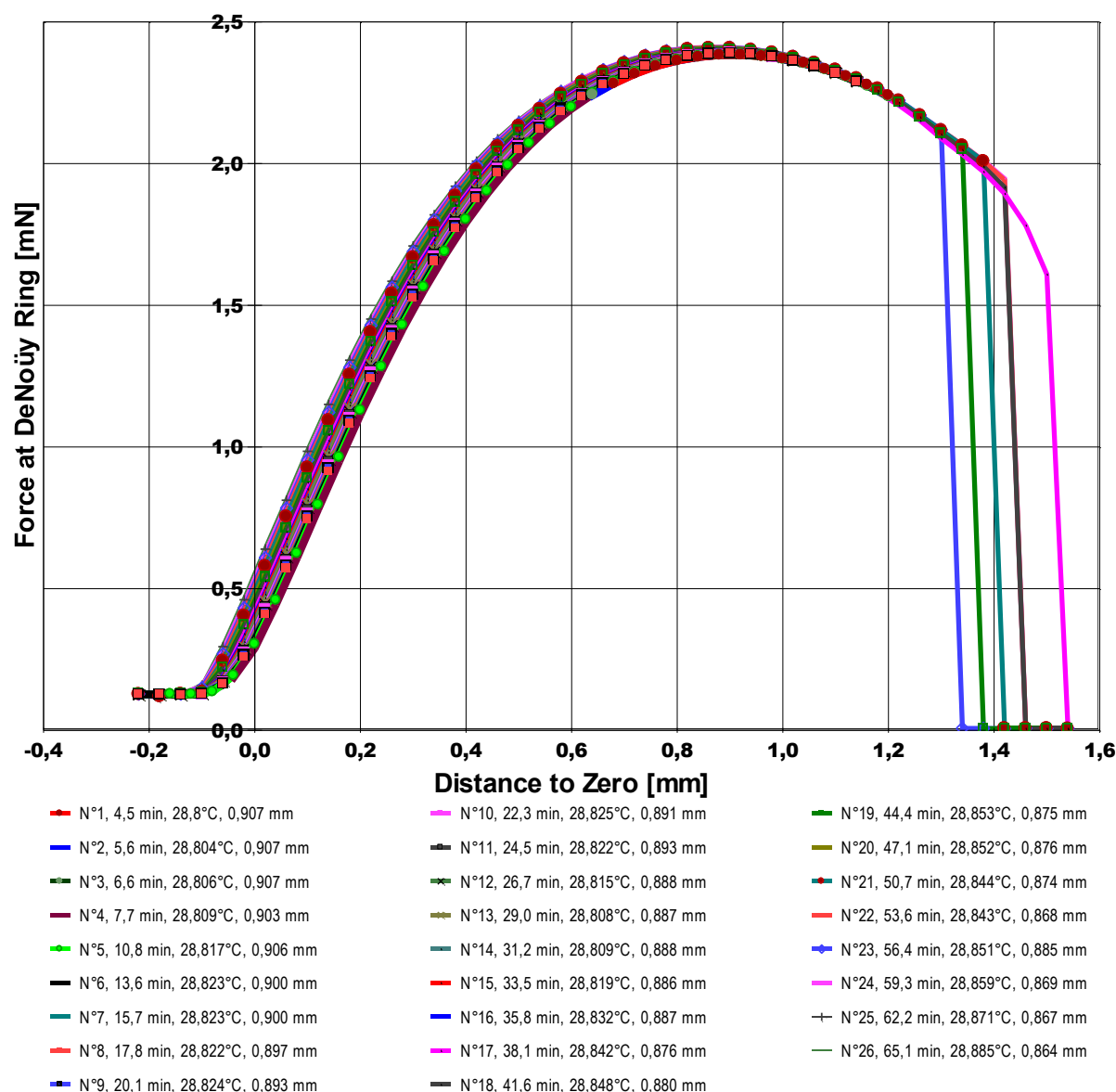
| N°  | $F_{\text{max.}}$<br>[mN] | $F_{\text{bz.}}$<br>[mN] | $f_k$<br>-            | $v_z$<br>[mm·s <sup>-1</sup> ] | X<br>[mm] | $t_x$<br>[s] | $\Omega K$<br>- |
|-----|---------------------------|--------------------------|-----------------------|--------------------------------|-----------|--------------|-----------------|
| 1.  | 2,3846                    | 0,0000                   | 0,9142 p <sup>1</sup> | 0,0107                         | -         | -            | <sup>3</sup> pS |
| 2.  | 2,3856                    | 0,0000                   | 0,9142 p <sup>1</sup> | 0,0112                         | -         | -            | <sup>3</sup> pS |
| 3.  | 2,3846                    | 0,0000                   | 0,9142 p <sup>1</sup> | 0,0110                         | -         | -            | <sup>3</sup> pS |
| 4.  | 2,3856                    | 0,0000                   | 0,9142 p <sup>1</sup> | 0,0110                         | -         | -            | <sup>3</sup> kS |
| 5.  | 2,3857                    | 0,0000                   | 0,9142 p <sup>1</sup> | 0,0108                         | -         | -            | <sup>3</sup> kS |
| 6.  | 2,3862                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0119                         | -         | -            | <sup>3</sup> kS |
| 7.  | 2,3882                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0117                         | -         | -            | <sup>3</sup> kS |
| 8.  | 2,3892                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0111                         | -         | -            | <sup>3</sup> kS |
| 9.  | 2,3892                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0115                         | -         | -            | <sup>3</sup> kS |
| 10. | 2,3913                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0116                         | -         | -            | <sup>3</sup> kS |
| 11. | 2,3912                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0111                         | -         | -            | <sup>3</sup> kS |
| 12. | 2,3922                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0115                         | -         | -            | <sup>3</sup> kS |
| 13. | 2,3934                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0110                         | -         | -            | <sup>3</sup> kS |
| 14. | 2,3953                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0108                         | -         | -            | <sup>3</sup> kS |
| 15. | 2,3965                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0106                         | -         | -            | <sup>3</sup> kS |
| 16. | 2,3973                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0111                         | -         | -            | <sup>3</sup> kS |
| 17. | 2,3970                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,00800                        | 1,500     | 193,28       | <sup>3</sup> kS |
| 18. | 2,4017                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0114                         | 1,420     | 144,45       | <sup>3</sup> kS |
| 19. | 2,4054                    | 0,0000                   | 0,9143 p <sup>1</sup> | 0,0108                         | 1,340     | 137,69       | <sup>3</sup> kS |

|     |        |        |                       |         |       |        |                 |
|-----|--------|--------|-----------------------|---------|-------|--------|-----------------|
| 20. | 2,4063 | 0,0000 | 0,9144 p <sup>1</sup> | 0,0112  | 1,260 | 130,25 | <sup>3</sup> kS |
| 21. | 2,4080 | 0,0000 | 0,9144 p <sup>1</sup> | 0,0104  | 1,380 | 146,61 | <sup>3</sup> kS |
| 22. | 2,4109 | 0,0000 | 0,9144 p <sup>1</sup> | 0,0103  | 1,420 | 150,18 | <sup>3</sup> kS |
| 23. | 2,4113 | 0,0000 | 0,9144 p <sup>1</sup> | 0,0104  | 1,300 | 142,29 | <sup>3</sup> kS |
| 24. | 2,4116 | 0,0000 | 0,9144 p <sup>1</sup> | 0,0111  | 1,420 | 146,37 | <sup>3</sup> kS |
| 25. | 2,4128 | 0,0000 | 0,9144 p <sup>1</sup> | 0,0105  | 1,380 | 149,25 | <sup>3</sup> kS |
| 26. | 2,4137 | 0,0000 | 0,9144 p <sup>1</sup> | 0,00947 | 1,260 | 151,07 | <sup>3</sup> kS |

$F_{max}$  gibt den interpolierten Kraftmesswert am Scheitelpunkt an (=Maximalkraft); der Kraftbezugswert ist mit  $F_{bz}$  bezeichnet. Berechnung:  $\gamma = f_c \cdot f_k \cdot W_\gamma / (4\pi \cdot R \cdot g)$  mit  $W_\gamma = (F_{max} - F_{bz} + F_{Ringauftrieb}) \cdot g$ . Der Faktor  $f_k$ , der die Ringgeometrie und Dichteverhältnisse berücksichtigt, kann nach verschiedenen Rechenverfahren bestimmt werden, die jeweils in technischen Normen vorgeschrieben sein können. Um die Herkunft des Faktors  $f_k$  kenntlich zu machen, wird ein angehängtes Zeichen zugefügt:  $h$  steht für (interpolierte) Werte aus den original Harkins und Jordan Tabellen (' $\ddagger$ ' zeigt nicht interpolierbare Randlagen in der Tabelle an),  $f$  steht für die Tabellen nach Fox und Chrisman,  $z$  für Zuidema und Waters,  $p$  steht für den IMETER/Petzoldt'schen Lösungsalgorithmus, der die zugrundeliegende Differenzialgleichung adressiert sowie  $w$  für die unkorrigierte 'F/2U'-Berechnung des Näherungswertes. Mit  $v_z$  wird die Abzugsgeschwindigkeit angegeben, also die Geschwindigkeit, mit der Ring und Flüssigkeitsoberfläche zur Messung auseinander bewegt wurden. Falls während des Lamellenauszugs ein Bruch der Flüssigkeitslamelle auftrat, gibt  $X$  die Bruchhöhe und  $t_x$  dafür den relativen Zeitpunkt an.

Die Angabe  $\Omega K$  ist das Klassifizierungskennzeichen der Messkurve: '<sup>1</sup>' steht für eine Messkurve mit kurz zuvor ermittelter Bezugskraft; bei '<sup>2</sup>' wurde die Bezugskraft übernommen; '<sup>3</sup>' bedeutet ohne Bezugskraft (tariert); ' $k$ ' bezeichnet vollständige Kurvenzüge, ' $p$ ' Teilkurven, ' $s$ ' Einzelpunkt, ' $r$ ' Sonderformen; ' $D$ ' steht für dynamische Messkurven, ' $S$ ' für statische Mehrpunkt- oder ' $M$ ' Einzelpunktmessungen. Ein ' $x$ ' wird angehängt, wenn der Messwert unsicher ist und aus nicht-idealen Messkurven ermittelt wurde, z.B. bei verzerrter Parabelform.

→ Diagramm 2. Messkurven - Grundlage der Bestimmung der Oberflächenspannung - 'Measuring Curves'<sup>21</sup>



- Im Diagramm "Measuring Curves<sup>2</sup>" werden die zu Grunde liegenden einzelnen Kraftmesswerte als 'Messkraft' gegen 'Lamellenhöhe' für alle Messpunkte der 26 Messkurven dargestellt. Eine Messkurve beschreibt einen Oberflächen Spannungswert. Qualität und Korrektheit einer Messung zeichnen sich durch entsprechend konvexe Kurvenzüge im Bereich der Kraftmaxima aus.

## • 5. Referenzvergleich mit Wasser bei 28,89°C

|          | Referenz | Messung | $\Delta$ absolut | $\Delta$ relativ | $\Delta / u$ |
|----------|----------|---------|------------------|------------------|--------------|
| $\gamma$ | 71,37    | 70,24   | -1,1 mN/m        | -1,6%            | -4           |

## • 7. Inline IMProReports

**IMPro Konfig. Start 16:56:44/0,02 [min]** - Oberflächenbestimmung: Antast-Auflösung 0,001 mm, Z-Toleranz -0,02 mm.

**Probenmenge: 0,0645 g transferiert** mit  $\rho = 0,9960 \text{ g/cm}^3 \rightarrow 4,76 \text{ }\mu\text{L}$ , (Spritzenauswägung) 2,72 [min].

Berühr-Position Fluidoberfläche: 21,079 [mm],  $\Delta$ -0,049, Gewicht (Oberfl.Berührung): 0,10901 [g], 3,93 [min].

Berühr-Position Kachelboden: 22,594 [mm],  $\Delta$ 0,001, Gewicht (elast. Bodenkontakt): -0,34379 [g], 4,31 [min].

**Füllstand-Brutthöhe: 1,515 mm Netto-Füllstand: 1,527 (MK-Angabe: 1,563  $\rightarrow \Delta$  0,036 mm).**

- MessSequenz -

| Nr. | Zeit (min) | Fmax (mN) | ZFmax (mm) | Temp. (°C) | Letztes Lamellengewicht (g)   (mN)    Z   H (mm) |
|-----|------------|-----------|------------|------------|--------------------------------------------------|
| 1   | 5,28       | 2,385     | 20,347     | 28,801     | 0,2284   2,240    -1,200   20,067                |
| 2   | 6,36       | 2,385     | 20,347     | 28,805     | 0,2283   2,239    -1,200   20,067                |
| 3   | 7,39       | 2,384     | 20,347     | 28,806     | 0,2283   2,239    -1,200   20,067                |
| 4   | 9,39       | 2,384     | 20,347     | 28,809     | 0,2354   2,309    -1,120   20,147                |
| 5   | 12,85      | 2,385     | 20,347     | 28,819     | 0,2281   2,237    -1,200   20,067                |
| 6   | 15,47      | 2,386     | 20,367     | 28,825     | 0,2335   2,290    -1,140   20,127                |
| 7   | 17,59      | 2,387     | 20,367     | 28,824     | 0,2335   2,290    -1,140   20,127                |
| 8   | 19,84      | 2,388     | 20,367     | 28,822     | 0,2334   2,289    -1,140   20,127                |
| 9   | 22,03      | 2,389     | 20,367     | 28,825     | 0,2334   2,289    -1,140   20,127                |
| 10  | 24,23      | 2,390     | 20,367     | 28,825     | 0,2334   2,289    -1,140   20,127                |
| 11  | 26,50      | 2,391     | 20,367     | 28,822     | 0,2333   2,288    -1,140   20,127                |
| 12  | 28,73      | 2,393     | 20,367     | 28,814     | 0,2334   2,289    -1,140   20,127                |
| 13  | 30,94      | 2,393     | 20,367     | 28,808     | 0,2333   2,289    -1,140   20,127                |
| 14  | 33,24      | 2,394     | 20,367     | 28,810     | 0,2333   2,288    -1,140   20,127                |
| 15  | 35,56      | 2,395     | 20,367     | 28,820     | 0,2334   2,289    -1,140   20,127                |
| 16  | 37,81      | 2,397     | 20,367     | 28,833     | 0,2333   2,288    -1,140   20,127                |
| 17  | 41,33      | 2,397     | 20,367     | 28,845     | 0,0005   0,005    -1,540   19,727                |
| 18  | 44,11      | 2,403     | 20,367     | 28,850     | 0,0005   0,005    -1,540   19,727                |
| 19  | 46,87      | 2,405     | 20,367     | 28,854     | 0,0006   0,006    -1,540   19,727                |
| 20  | 50,40      | 2,407     | 20,367     | 28,854     | 0,0005   0,005    -2,140   19,128                |
| 21  | 53,29      | 2,408     | 20,367     | 28,844     | 0,0007   0,007    -1,540   19,727                |
| 22  | 56,18      | 2,411     | 20,407     | 28,843     | 0,0007   0,007    -1,540   19,727                |
| 23  | 59,03      | 2,409     | 20,367     | 28,853     | 0,0007   0,007    -1,540   19,727                |
| 24  | 61,94      | 2,410     | 20,367     | 28,860     | 0,0008   0,008    -1,540   19,727                |
| 25  | 64,85      | 2,413     | 20,407     | 28,873     | 0,0008   0,008    -1,540   19,727                |
| 26  | 68,58      | 2,414     | 20,407     | 28,887     | 0,0008   0,008    -2,140   19,128                |

- **Inline Reports** = durch das IMPro während des Ablaufs der Messung erzeugt Ausgaben, die das laufende IMPro über die Funktion 'Create Report' mit Dokumentenstatus erzeugt.

## • 8. Extended Weighing Record

| N° | Time [min] | Weigh [g] | Std.Dev. $\pm$ [g] | Counts [n] | Duration [s] | Trend/ Quality | $r^2$ | Tare [g] |
|----|------------|-----------|--------------------|------------|--------------|----------------|-------|----------|
| 1. | 2,92       | -0,34261  | 0,00006            | 31         | 1,52         | ✓              |       | 9,276317 |
| 2. | 3,90       | 0,1090    | 0,0001             | 31         | 1,52         |                | 0,87↘ | 8,933674 |
| 3. | 4,29       | -0,34     | 0,06               | 31         | 1,51         |                | 0,12→ | 8,933674 |
| 4. | 68,73      | 0,00088   | 0,00009            | 31         | 1,52         | ✓              | 0,77↘ | 8,933674 |

## ROHDATEN – AUS DATENBANK zu IDN°25118 (8.9.26)

| DSN°   | Platform [mm] | at [s]  | DN°    | Time [s] | Force [mN] | Protocol-Data | Time/Key |
|--------|---------------|---------|--------|----------|------------|---------------|----------|
| 409416 | -21,0173      | 0,208   | 393371 | 0,242    | 0,0000     |               |          |
| 409417 | 0,2178        | 128,550 |        |          |            |               |          |
| 409418 | -21,1671      | 164,585 |        |          |            |               |          |
| 409419 | -2,0672       | 172,336 |        |          |            |               |          |
| 409420 | -0,2372       | 180,034 |        |          |            |               |          |
| 409421 | 0,0000        | 235,588 |        |          |            |               |          |
| 409422 | 1,3060        | 237,668 |        |          |            |               |          |
| 409423 | 1,3070        | 259,103 |        |          |            |               |          |
| 409424 | -0,6000       | 261,658 |        |          |            |               |          |
| 409425 | -0,6400       | 264,964 | 393372 | 267,574  | 2,2401     |               |          |
| 409426 | -0,6800       | 268,489 | 393373 | 270,861  | 2,2822     |               |          |
| 409427 | -0,7200       | 271,757 | 393374 | 274,216  | 2,3166     |               |          |
| 409428 | -0,7600       | 275,042 | 393375 | 277,421  | 2,3440     |               |          |
| 409429 | -0,8000       | 278,262 | 393376 | 281,804  | 2,3637     |               |          |
| 409430 | -0,8400       | 282,829 | 393377 | 285,095  | 2,3764     |               |          |
| 409431 | -0,8800       | 285,943 | 393378 | 287,909  | 2,3833     |               |          |
| 409432 | -0,9200       | 288,760 | 393379 | 290,864  | 2,3842     |               |          |
| 409433 | -0,9599       | 291,751 | 393380 | 294,805  | 2,3793     |               |          |
| 409434 | -0,9999       | 295,532 | 393381 | 298,615  | 2,3705     |               |          |
| 409435 | -1,0399       | 299,400 | 393382 | 302,649  | 2,3558     |               |          |
| 409436 | -1,0799       | 303,379 | 393383 | 305,659  | 2,3342     |               |          |
| 409437 | -1,1199       | 306,434 | 393384 | 309,097  | 2,3087     |               |          |
| 409438 | -1,1599       | 309,951 | 393385 | 312,854  | 2,2783     |               |          |
| 409439 | -1,1999       | 313,576 | 393386 | 316,416  | 2,2411     |               |          |
| 409440 | 1,3070        | 320,293 |        |          |            |               |          |
| 409441 | -0,6000       | 330,147 |        |          |            |               |          |
| 409442 | -0,6400       | 333,145 | 393387 | 335,413  | 2,2411     |               |          |
| 409443 | -0,6800       | 336,234 | 393388 | 338,505  | 2,2832     |               |          |
| 409444 | -0,7200       | 339,310 | 393389 | 341,541  | 2,3176     |               |          |
| 409445 | -0,7600       | 342,395 | 393390 | 344,450  | 2,3450     |               |          |
| 409446 | -0,8000       | 345,310 | 393391 | 347,658  | 2,3637     |               |          |
| 409447 | -0,8400       | 348,647 | 393392 | 351,306  | 2,3764     |               |          |
| 409448 | -0,8800       | 352,199 | 393393 | 354,536  | 2,3842     |               |          |
| 409449 | -0,9200       | 355,368 | 393394 | 358,198  | 2,3852     |               |          |
| 409450 | -0,9599       | 358,991 | 393395 | 361,606  | 2,3803     |               |          |
| 409451 | -0,9999       | 362,366 | 393396 | 364,779  | 2,3695     |               |          |
| 409452 | -1,0399       | 365,549 | 393397 | 367,681  | 2,3548     |               |          |
| 409453 | -1,0799       | 368,448 | 393398 | 371,452  | 2,3342     |               |          |
| 409454 | -1,1199       | 372,170 | 393399 | 374,861  | 2,3087     |               |          |
| 409455 | -1,1599       | 375,676 | 393400 | 377,908  | 2,2773     |               |          |
| 409456 | -1,1999       | 378,718 | 393401 | 381,083  | 2,2401     |               |          |
| 409457 | 1,3070        | 385,139 |        |          |            |               |          |
| 409458 | -0,6000       | 391,947 |        |          |            |               |          |
| 409459 | -0,6400       | 394,971 | 393402 | 397,973  | 2,2430     |               |          |
| 409460 | -0,6800       | 398,796 | 393403 | 401,433  | 2,2842     |               |          |
| 409461 | -0,7200       | 402,307 | 393404 | 404,620  | 2,3185     |               |          |
| 409462 | -0,7600       | 405,454 | 393405 | 408,045  | 2,3460     |               |          |
| 409463 | -0,8000       | 408,859 | 393406 | 411,508  | 2,3637     |               |          |
| 409464 | -0,8400       | 412,487 | 393407 | 415,503  | 2,3764     |               |          |
| 409465 | -0,8800       | 416,271 | 393408 | 418,138  | 2,3833     |               |          |
| 409466 | -0,9200       | 418,946 | 393409 | 420,425  | 2,3842     |               |          |
| 409467 | -0,9599       | 421,226 | 393410 | 423,314  | 2,3793     |               |          |
| 409468 | -0,9999       | 424,055 | 393411 | 426,273  | 2,3695     |               |          |
| 409469 | -1,0399       | 427,224 | 393412 | 430,075  | 2,3548     |               |          |
| 409470 | -1,0799       | 430,919 | 393413 | 433,271  | 2,3332     |               |          |

|        |         |         |        |         |        |
|--------|---------|---------|--------|---------|--------|
| 409471 | -1,1199 | 433,981 | 393414 | 436,272 | 2,3077 |
| 409472 | -1,1599 | 437,071 | 393415 | 439,760 | 2,2754 |
| 409473 | -1,1999 | 440,571 | 393416 | 443,181 | 2,2391 |
| 409474 | 1,3070  | 450,387 |        |         |        |
| 409475 | 0,0800  | 456,172 |        |         |        |
| 409476 | 0,0400  | 459,414 | 393417 | 461,899 | 0,1873 |
| 409477 | 0,0000  | 462,673 | 393418 | 464,959 | 0,2903 |
| 409478 | -0,0400 | 465,815 | 393419 | 468,359 | 0,4443 |
| 409479 | -0,0800 | 469,216 | 393420 | 471,874 | 0,6091 |
| 409480 | -0,1200 | 472,738 | 393421 | 475,265 | 0,7807 |
| 409481 | -0,1600 | 476,092 | 393422 | 480,126 | 0,9494 |
| 409482 | -0,2000 | 481,032 | 393423 | 484,342 | 1,1142 |
| 409483 | -0,2400 | 485,228 | 393424 | 488,112 | 1,2681 |
| 409484 | -0,2799 | 489,008 | 393425 | 491,648 | 1,4162 |
| 409485 | -0,3199 | 492,452 | 393426 | 495,142 | 1,5526 |
| 409486 | -0,3599 | 496,094 | 393427 | 498,870 | 1,6771 |
| 409487 | -0,3999 | 499,604 | 393428 | 501,981 | 1,7919 |
| 409488 | -0,4399 | 502,850 | 393429 | 506,182 | 1,8939 |
| 409489 | -0,4799 | 507,013 | 393430 | 509,337 | 1,9851 |
| 409490 | -0,5199 | 510,230 | 393431 | 512,921 | 2,0635 |
| 409491 | -0,5599 | 513,870 | 393432 | 516,736 | 2,1351 |
| 409492 | -0,5999 | 517,529 | 393433 | 521,415 | 2,1940 |
| 409493 | -0,6399 | 522,329 | 393434 | 524,698 | 2,2450 |
| 409494 | -0,6799 | 525,544 | 393435 | 527,934 | 2,2862 |
| 409495 | -0,7199 | 528,794 | 393436 | 531,352 | 2,3195 |
| 409496 | -0,7599 | 532,292 | 393437 | 534,684 | 2,3470 |
| 409497 | -0,7999 | 535,504 | 393438 | 537,884 | 2,3656 |
| 409498 | -0,8399 | 538,733 | 393439 | 541,009 | 2,3784 |
| 409499 | -0,8799 | 541,810 | 393440 | 543,883 | 2,3842 |
| 409500 | -0,9199 | 544,751 | 393441 | 546,583 | 2,3842 |
| 409501 | -0,9599 | 547,420 | 393442 | 550,145 | 2,3803 |
| 409502 | -0,9998 | 550,986 | 393443 | 553,250 | 2,3695 |
| 409503 | -1,0398 | 554,031 | 393444 | 556,079 | 2,3548 |
| 409504 | -1,0798 | 556,855 | 393445 | 559,579 | 2,3332 |
| 409505 | -1,1198 | 560,336 | 393446 | 562,900 | 2,3077 |
| 409506 | 1,3070  | 633,507 |        |         |        |
| 409507 | 0,2000  | 639,668 |        |         |        |
| 409508 | 0,1600  | 643,360 | 393447 | 644,909 | 0,1285 |
| 409509 | 0,1200  | 645,760 | 393448 | 648,454 | 0,1275 |
| 409510 | 0,0800  | 649,325 | 393449 | 651,807 | 0,1363 |
| 409511 | 0,0400  | 652,750 | 393450 | 655,195 | 0,1942 |
| 409512 | 0,0000  | 656,031 | 393451 | 658,774 | 0,3040 |
| 409513 | -0,0400 | 659,690 | 393452 | 662,283 | 0,4600 |
| 409514 | -0,0800 | 663,134 | 393453 | 665,768 | 0,6248 |
| 409515 | -0,1200 | 666,624 | 393454 | 669,187 | 0,7964 |
| 409516 | -0,1599 | 670,030 | 393455 | 672,390 | 0,9641 |
| 409517 | -0,1999 | 673,198 | 393456 | 675,849 | 1,1298 |
| 409518 | -0,2399 | 676,706 | 393457 | 679,983 | 1,2838 |
| 409519 | -0,2799 | 680,885 | 393458 | 684,480 | 1,4309 |
| 409520 | -0,3199 | 685,331 | 393459 | 687,916 | 1,5653 |
| 409521 | -0,3599 | 688,814 | 393460 | 691,157 | 1,6899 |
| 409522 | -0,3999 | 691,982 | 393461 | 696,241 | 1,8036 |
| 409523 | -0,4399 | 697,181 | 393462 | 700,034 | 1,9037 |
| 409524 | -0,4799 | 700,848 | 393463 | 704,107 | 1,9949 |
| 409525 | -0,5199 | 704,974 | 393464 | 707,969 | 2,0724 |
| 409526 | -0,5599 | 708,800 | 393465 | 712,045 | 2,1400 |
| 409527 | -0,5999 | 712,875 | 393466 | 715,147 | 2,1999 |
| 409528 | -0,6399 | 716,072 | 393467 | 719,388 | 2,2499 |
| 409529 | -0,6799 | 720,242 | 393468 | 723,569 | 2,2901 |
| 409530 | -0,7199 | 724,528 | 393469 | 728,036 | 2,3234 |

|        |         |         |        |         |        |
|--------|---------|---------|--------|---------|--------|
| 409531 | -0,7599 | 728,888 | 393470 | 731,248 | 2,3489 |
| 409532 | -0,7999 | 732,053 | 393471 | 734,988 | 2,3666 |
| 409533 | -0,8399 | 735,866 | 393472 | 737,948 | 2,3793 |
| 409534 | -0,8799 | 738,812 | 393473 | 740,888 | 2,3842 |
| 409535 | -0,9198 | 741,860 | 393474 | 743,197 | 2,3852 |
| 409536 | -0,9598 | 744,147 | 393475 | 747,631 | 2,3793 |
| 409537 | -0,9998 | 748,355 | 393476 | 751,973 | 2,3695 |
| 409538 | -1,0398 | 752,798 | 393477 | 756,203 | 2,3538 |
| 409539 | -1,0798 | 757,063 | 393478 | 759,779 | 2,3323 |
| 409540 | -1,1198 | 760,583 | 393479 | 762,964 | 2,3068 |
| 409541 | -1,1598 | 763,727 | 393480 | 766,428 | 2,2744 |
| 409542 | -1,1998 | 767,252 | 393481 | 770,553 | 2,2371 |
| 409543 | 1,3070  | 803,478 |        |         |        |
| 409544 | 0,2600  | 809,510 |        |         |        |
| 409545 | 0,2200  | 812,343 | 393482 | 813,932 | 0,1275 |
| 409546 | 0,1800  | 814,892 | 393483 | 816,899 | 0,1265 |
| 409547 | 0,1400  | 817,768 | 393484 | 819,201 | 0,1265 |
| 409548 | 0,1000  | 820,033 | 393485 | 821,757 | 0,1265 |
| 409549 | 0,0600  | 822,631 | 393486 | 824,775 | 0,1608 |
| 409550 | 0,0200  | 825,675 | 393487 | 827,907 | 0,2472 |
| 409551 | -0,0200 | 828,780 | 393488 | 831,469 | 0,3903 |
| 409552 | -0,0600 | 832,330 | 393489 | 834,978 | 0,5532 |
| 409553 | -0,1000 | 835,871 | 393490 | 838,283 | 0,7248 |
| 409554 | -0,1399 | 839,147 | 393491 | 842,139 | 0,8935 |
| 409555 | -0,1799 | 843,003 | 393492 | 845,648 | 1,0612 |
| 409556 | -0,2199 | 846,526 | 393493 | 849,156 | 1,2211 |
| 409557 | -0,2599 | 850,031 | 393494 | 852,626 | 1,3692 |
| 409558 | -0,2999 | 853,489 | 393495 | 855,896 | 1,5104 |
| 409559 | -0,3399 | 856,733 | 393496 | 859,196 | 1,6389 |
| 409560 | -0,3799 | 860,148 | 393497 | 862,749 | 1,7566 |
| 409561 | -0,4199 | 863,726 | 393498 | 866,749 | 1,8635 |
| 409562 | -0,4599 | 867,643 | 393499 | 870,063 | 1,9576 |
| 409563 | -0,4999 | 870,843 | 393500 | 873,438 | 2,0400 |
| 409564 | -0,5399 | 874,292 | 393501 | 877,692 | 2,1126 |
| 409565 | -0,5799 | 878,543 | 393502 | 881,057 | 2,1773 |
| 409566 | -0,6199 | 881,974 | 393503 | 884,294 | 2,2293 |
| 409567 | -0,6599 | 885,164 | 393504 | 887,785 | 2,2744 |
| 409568 | -0,6999 | 888,615 | 393505 | 890,926 | 2,3107 |
| 409569 | -0,7399 | 891,826 | 393506 | 893,916 | 2,3391 |
| 409570 | -0,7799 | 894,749 | 393507 | 897,853 | 2,3607 |
| 409571 | -0,8199 | 898,696 | 393508 | 900,996 | 2,3754 |
| 409572 | -0,8599 | 901,871 | 393509 | 904,203 | 2,3842 |
| 409573 | -0,8998 | 905,106 | 393510 | 906,474 | 2,3862 |
| 409574 | -0,9398 | 907,357 | 393511 | 909,720 | 2,3842 |
| 409575 | -0,9798 | 910,638 | 393512 | 912,650 | 2,3764 |
| 409576 | -1,0198 | 913,358 | 393513 | 916,399 | 2,3627 |
| 409577 | -1,0598 | 917,190 | 393514 | 920,664 | 2,3440 |
| 409578 | -1,0998 | 921,474 | 393515 | 924,267 | 2,3195 |
| 409579 | -1,1398 | 924,998 | 393516 | 927,746 | 2,2901 |
| 409580 | 1,3070  | 931,654 |        |         |        |
| 409581 | 0,2600  | 937,418 |        |         |        |
| 409582 | 0,2200  | 940,590 | 393517 | 941,965 | 0,1265 |
| 409583 | 0,1800  | 942,861 | 393518 | 945,159 | 0,1265 |
| 409584 | 0,1400  | 945,963 | 393519 | 948,096 | 0,1255 |
| 409585 | 0,1000  | 948,812 | 393520 | 950,634 | 0,1275 |
| 409586 | 0,0600  | 951,495 | 393521 | 954,394 | 0,1618 |
| 409587 | 0,0200  | 955,313 | 393522 | 958,233 | 0,2501 |
| 409588 | -0,0200 | 959,072 | 393523 | 961,306 | 0,3992 |
| 409589 | -0,0600 | 962,231 | 393524 | 965,467 | 0,5610 |
| 409590 | -0,1000 | 966,258 | 393525 | 968,557 | 0,7326 |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 409591 | -0,1399 | 969,465  | 393526 | 972,116  | 0,9033 |
| 409592 | -0,1799 | 973,076  | 393527 | 975,379  | 1,0700 |
| 409593 | -0,2199 | 976,255  | 393528 | 978,650  | 1,2299 |
| 409594 | -0,2599 | 979,582  | 393529 | 983,166  | 1,3780 |
| 409595 | -0,2999 | 984,006  | 393530 | 986,555  | 1,5182 |
| 409596 | -0,3399 | 987,425  | 393531 | 989,718  | 1,6457 |
| 409597 | -0,3799 | 990,614  | 393532 | 993,343  | 1,7634 |
| 409598 | -0,4199 | 994,198  | 393533 | 997,099  | 1,8684 |
| 409599 | -0,4599 | 998,022  | 393534 | 1000,270 | 1,9615 |
| 409600 | -0,4999 | 1001,111 | 393535 | 1004,128 | 2,0449 |
| 409601 | -0,5399 | 1005,002 | 393536 | 1007,329 | 2,1175 |
| 409602 | -0,5799 | 1008,273 | 393537 | 1010,540 | 2,1802 |
| 409603 | -0,6199 | 1011,374 | 393538 | 1013,715 | 2,2332 |
| 409604 | -0,6599 | 1014,571 | 393539 | 1017,312 | 2,2773 |
| 409605 | -0,6999 | 1018,201 | 393540 | 1020,689 | 2,3117 |
| 409606 | -0,7399 | 1021,509 | 393541 | 1024,242 | 2,3411 |
| 409607 | -0,7799 | 1025,220 | 393542 | 1027,335 | 2,3617 |
| 409608 | -0,8199 | 1028,304 | 393543 | 1030,755 | 2,3774 |
| 409609 | -0,8599 | 1031,623 | 393544 | 1033,726 | 2,3842 |
| 409610 | -0,8998 | 1034,528 | 393545 | 1036,235 | 2,3882 |
| 409611 | -0,9398 | 1037,076 | 393546 | 1039,083 | 2,3842 |
| 409612 | -0,9798 | 1039,810 | 393547 | 1042,526 | 2,3764 |
| 409613 | -1,0198 | 1043,341 | 393548 | 1045,582 | 2,3627 |
| 409614 | -1,0598 | 1046,318 | 393549 | 1048,676 | 2,3440 |
| 409615 | -1,0998 | 1049,420 | 393550 | 1051,774 | 2,3195 |
| 409616 | -1,1398 | 1052,604 | 393551 | 1054,808 | 2,2901 |
| 409617 | 1,3070  | 1058,785 |        |          |        |
| 409618 | 0,2600  | 1064,770 |        |          |        |
| 409619 | 0,2200  | 1067,784 | 393552 | 1069,157 | 0,1275 |
| 409620 | 0,1800  | 1070,094 | 393553 | 1072,098 | 0,1265 |
| 409621 | 0,1400  | 1072,848 | 393554 | 1074,680 | 0,1246 |
| 409622 | 0,1000  | 1075,392 | 393555 | 1078,931 | 0,1265 |
| 409623 | 0,0600  | 1079,772 | 393556 | 1082,433 | 0,1628 |
| 409624 | 0,0200  | 1083,368 | 393557 | 1086,568 | 0,2570 |
| 409625 | -0,0200 | 1087,411 | 393558 | 1089,673 | 0,4080 |
| 409626 | -0,0600 | 1090,559 | 393559 | 1094,173 | 0,5708 |
| 409627 | -0,1000 | 1094,950 | 393560 | 1097,595 | 0,7444 |
| 409628 | -0,1399 | 1098,468 | 393561 | 1100,833 | 0,9141 |
| 409629 | -0,1799 | 1101,729 | 393562 | 1104,512 | 1,0818 |
| 409630 | -0,2199 | 1105,511 | 393563 | 1108,527 | 1,2407 |
| 409631 | -0,2599 | 1109,585 | 393564 | 1112,224 | 1,3878 |
| 409632 | -0,2999 | 1113,161 | 393565 | 1116,431 | 1,5261 |
| 409633 | -0,3399 | 1117,226 | 393566 | 1119,740 | 1,6546 |
| 409634 | -0,3799 | 1120,624 | 393567 | 1123,970 | 1,7703 |
| 409635 | -0,4199 | 1124,822 | 393568 | 1127,481 | 1,8762 |
| 409636 | -0,4599 | 1128,332 | 393569 | 1130,601 | 1,9674 |
| 409637 | -0,4999 | 1131,426 | 393570 | 1133,760 | 2,0498 |
| 409638 | -0,5399 | 1134,703 | 393571 | 1137,550 | 2,1224 |
| 409639 | -0,5799 | 1138,482 | 393572 | 1141,575 | 2,1842 |
| 409640 | -0,6199 | 1142,428 | 393573 | 1144,996 | 2,2362 |
| 409641 | -0,6599 | 1145,888 | 393574 | 1148,192 | 2,2793 |
| 409642 | -0,6999 | 1149,059 | 393575 | 1151,204 | 2,3156 |
| 409643 | -0,7399 | 1152,222 | 393576 | 1154,910 | 2,3440 |
| 409644 | -0,7799 | 1155,903 | 393577 | 1158,518 | 2,3646 |
| 409645 | -0,8199 | 1159,443 | 393578 | 1161,977 | 2,3793 |
| 409646 | -0,8599 | 1162,841 | 393579 | 1165,806 | 2,3862 |
| 409647 | -0,8998 | 1166,773 | 393580 | 1168,579 | 2,3892 |
| 409648 | -0,9398 | 1169,531 | 393581 | 1172,699 | 2,3852 |
| 409649 | -0,9798 | 1173,469 | 393582 | 1175,689 | 2,3764 |
| 409650 | -1,0198 | 1176,496 | 393583 | 1179,258 | 2,3627 |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 409651 | -1,0598 | 1180,038 | 393584 | 1182,806 | 2,3440 |
| 409652 | -1,0998 | 1183,571 | 393585 | 1186,331 | 2,3195 |
| 409653 | -1,1398 | 1187,092 | 393586 | 1189,832 | 2,2891 |
| 409654 | 1,3070  | 1193,620 |        |          |        |
| 409655 | 0,2600  | 1199,537 |        |          |        |
| 409656 | 0,2200  | 1202,741 | 393587 | 1204,074 | 0,1265 |
| 409657 | 0,1800  | 1204,969 | 393588 | 1206,358 | 0,1265 |
| 409658 | 0,1400  | 1207,301 | 393589 | 1208,626 | 0,1265 |
| 409659 | 0,1000  | 1209,446 | 393590 | 1212,010 | 0,1295 |
| 409660 | 0,0600  | 1212,880 | 393591 | 1215,530 | 0,1658 |
| 409661 | 0,0200  | 1216,488 | 393592 | 1218,908 | 0,2648 |
| 409662 | -0,0200 | 1219,780 | 393593 | 1222,849 | 0,4149 |
| 409663 | -0,0600 | 1223,717 | 393594 | 1226,090 | 0,5816 |
| 409664 | -0,1000 | 1226,919 | 393595 | 1229,230 | 0,7542 |
| 409665 | -0,1399 | 1230,010 | 393596 | 1232,597 | 0,9249 |
| 409666 | -0,1799 | 1233,586 | 393597 | 1235,923 | 1,0916 |
| 409667 | -0,2199 | 1236,743 | 393598 | 1239,101 | 1,2495 |
| 409668 | -0,2599 | 1240,029 | 393599 | 1242,531 | 1,3976 |
| 409669 | -0,2999 | 1243,429 | 393600 | 1246,024 | 1,5369 |
| 409670 | -0,3399 | 1246,888 | 393601 | 1250,739 | 1,6624 |
| 409671 | -0,3799 | 1251,780 | 393602 | 1254,749 | 1,7781 |
| 409672 | -0,4199 | 1255,651 | 393603 | 1259,747 | 1,8811 |
| 409673 | -0,4599 | 1260,598 | 393604 | 1263,887 | 1,9713 |
| 409674 | -0,4999 | 1264,734 | 393605 | 1268,006 | 2,0537 |
| 409675 | -0,5399 | 1268,904 | 393606 | 1271,198 | 2,1273 |
| 409676 | -0,5799 | 1272,103 | 393607 | 1274,361 | 2,1901 |
| 409677 | -0,6199 | 1275,229 | 393608 | 1277,579 | 2,2401 |
| 409678 | -0,6599 | 1278,468 | 393609 | 1281,025 | 2,2832 |
| 409679 | -0,6999 | 1281,908 | 393610 | 1284,848 | 2,3176 |
| 409680 | -0,7399 | 1285,669 | 393611 | 1288,293 | 2,3450 |
| 409681 | -0,7799 | 1289,287 | 393612 | 1291,251 | 2,3666 |
| 409682 | -0,8199 | 1292,075 | 393613 | 1294,406 | 2,3793 |
| 409683 | -0,8599 | 1295,299 | 393614 | 1297,336 | 2,3872 |
| 409684 | -0,8998 | 1298,136 | 393615 | 1299,776 | 2,3892 |
| 409685 | -0,9398 | 1300,644 | 393616 | 1303,024 | 2,3852 |
| 409686 | -0,9798 | 1303,827 | 393617 | 1307,109 | 2,3774 |
| 409687 | -1,0198 | 1307,836 | 393618 | 1310,095 | 2,3627 |
| 409688 | -1,0598 | 1310,898 | 393619 | 1313,591 | 2,3440 |
| 409689 | -1,0998 | 1314,348 | 393620 | 1317,016 | 2,3205 |
| 409690 | -1,1398 | 1317,796 | 393621 | 1321,341 | 2,2891 |
| 409691 | 1,3070  | 1325,214 |        |          |        |
| 409692 | 0,2600  | 1330,904 |        |          |        |
| 409693 | 0,2200  | 1333,738 | 393622 | 1335,762 | 0,1255 |
| 409694 | 0,1800  | 1336,619 | 393623 | 1338,600 | 0,1265 |
| 409695 | 0,1400  | 1339,410 | 393624 | 1340,722 | 0,1265 |
| 409696 | 0,1000  | 1341,575 | 393625 | 1343,602 | 0,1265 |
| 409697 | 0,0600  | 1344,402 | 393626 | 1346,817 | 0,1677 |
| 409698 | 0,0200  | 1347,752 | 393627 | 1350,429 | 0,2727 |
| 409699 | -0,0200 | 1351,397 | 393628 | 1353,920 | 0,4257 |
| 409700 | -0,0600 | 1354,718 | 393629 | 1357,341 | 0,5924 |
| 409701 | -0,1000 | 1358,198 | 393630 | 1360,898 | 0,7650 |
| 409702 | -0,1399 | 1361,815 | 393631 | 1364,123 | 0,9357 |
| 409703 | -0,1799 | 1364,982 | 393632 | 1368,489 | 1,1024 |
| 409704 | -0,2199 | 1369,367 | 393633 | 1371,815 | 1,2613 |
| 409705 | -0,2599 | 1372,702 | 393634 | 1375,065 | 1,4074 |
| 409706 | -0,2999 | 1376,040 | 393635 | 1378,706 | 1,5457 |
| 409707 | -0,3399 | 1379,699 | 393636 | 1382,088 | 1,6712 |
| 409708 | -0,3799 | 1382,947 | 393637 | 1385,355 | 1,7850 |
| 409709 | -0,4199 | 1386,181 | 393638 | 1388,846 | 1,8890 |
| 409710 | -0,4599 | 1389,685 | 393639 | 1392,283 | 1,9802 |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 409711 | -0,4999 | 1393,205 | 393640 | 1395,460 | 2,0616 |
| 409712 | -0,5399 | 1396,317 | 393641 | 1398,645 | 2,1312 |
| 409713 | -0,5799 | 1399,607 | 393642 | 1401,805 | 2,1920 |
| 409714 | -0,6199 | 1402,623 | 393643 | 1406,829 | 2,2430 |
| 409715 | -0,6599 | 1407,728 | 393644 | 1410,129 | 2,2862 |
| 409716 | -0,6999 | 1410,981 | 393645 | 1413,166 | 2,3195 |
| 409717 | -0,7399 | 1413,967 | 393646 | 1416,970 | 2,3480 |
| 409718 | -0,7799 | 1417,886 | 393647 | 1420,074 | 2,3676 |
| 409719 | -0,8199 | 1421,137 | 393648 | 1423,712 | 2,3813 |
| 409720 | -0,8599 | 1424,791 | 393649 | 1427,470 | 2,3892 |
| 409721 | -0,8998 | 1428,439 | 393650 | 1430,597 | 2,3911 |
| 409722 | -0,9398 | 1431,514 | 393651 | 1434,600 | 2,3862 |
| 409723 | -0,9798 | 1435,454 | 393652 | 1438,416 | 2,3764 |
| 409724 | -1,0198 | 1439,147 | 393653 | 1443,351 | 2,3627 |
| 409725 | -1,0598 | 1444,059 | 393654 | 1446,474 | 2,3431 |
| 409726 | -1,0998 | 1447,286 | 393655 | 1449,681 | 2,3195 |
| 409727 | -1,1398 | 1450,472 | 393656 | 1452,997 | 2,2901 |
| 409728 | 1,3070  | 1456,830 |        |          |        |
| 409729 | 0,2600  | 1462,804 |        |          |        |
| 409730 | 0,2200  | 1466,417 | 393657 | 1469,052 | 0,1246 |
| 409731 | 0,1800  | 1469,926 | 393658 | 1471,886 | 0,1275 |
| 409732 | 0,1400  | 1472,698 | 393659 | 1474,732 | 0,1255 |
| 409733 | 0,1000  | 1475,466 | 393660 | 1478,785 | 0,1275 |
| 409734 | 0,0600  | 1479,620 | 393661 | 1483,075 | 0,1716 |
| 409735 | 0,0200  | 1484,026 | 393662 | 1486,614 | 0,2805 |
| 409736 | -0,0200 | 1487,476 | 393663 | 1490,350 | 0,4345 |
| 409737 | -0,0600 | 1491,181 | 393664 | 1493,765 | 0,6022 |
| 409738 | -0,1000 | 1494,652 | 393665 | 1496,936 | 0,7768 |
| 409739 | -0,1399 | 1497,800 | 393666 | 1500,123 | 0,9474 |
| 409740 | -0,1799 | 1501,065 | 393667 | 1504,335 | 1,1132 |
| 409741 | -0,2199 | 1505,248 | 393668 | 1507,504 | 1,2711 |
| 409742 | -0,2599 | 1508,405 | 393669 | 1511,192 | 1,4182 |
| 409743 | -0,2999 | 1512,045 | 393670 | 1514,473 | 1,5545 |
| 409744 | -0,3399 | 1515,296 | 393671 | 1517,625 | 1,6791 |
| 409745 | -0,3799 | 1518,517 | 393672 | 1521,538 | 1,7938 |
| 409746 | -0,4199 | 1522,366 | 393673 | 1524,916 | 1,8958 |
| 409747 | -0,4599 | 1525,793 | 393674 | 1528,107 | 1,9861 |
| 409748 | -0,4999 | 1528,992 | 393675 | 1532,366 | 2,0675 |
| 409749 | -0,5399 | 1533,233 | 393676 | 1536,978 | 2,1361 |
| 409750 | -0,5799 | 1537,943 | 393677 | 1540,298 | 2,1969 |
| 409751 | -0,6199 | 1541,186 | 393678 | 1544,340 | 2,2469 |
| 409752 | -0,6599 | 1545,155 | 393679 | 1547,429 | 2,2901 |
| 409753 | -0,6999 | 1548,296 | 393680 | 1550,955 | 2,3225 |
| 409754 | -0,7399 | 1551,784 | 393681 | 1554,145 | 2,3499 |
| 409755 | -0,7799 | 1555,084 | 393682 | 1557,734 | 2,3695 |
| 409756 | -0,8199 | 1558,637 | 393683 | 1560,758 | 2,3823 |
| 409757 | -0,8599 | 1561,629 | 393684 | 1564,726 | 2,3892 |
| 409758 | -0,8998 | 1565,655 | 393685 | 1567,752 | 2,3911 |
| 409759 | -0,9398 | 1568,651 | 393686 | 1571,162 | 2,3872 |
| 409760 | -0,9798 | 1571,941 | 393687 | 1574,512 | 2,3774 |
| 409761 | -1,0198 | 1575,236 | 393688 | 1579,004 | 2,3637 |
| 409762 | -1,0598 | 1579,802 | 393689 | 1582,073 | 2,3440 |
| 409763 | -1,0998 | 1582,963 | 393690 | 1585,415 | 2,3185 |
| 409764 | -1,1398 | 1586,097 | 393691 | 1589,299 | 2,2891 |
| 409765 | 1,3070  | 1593,300 |        |          |        |
| 409766 | 0,2600  | 1599,196 |        |          |        |
| 409767 | 0,2200  | 1602,703 | 393692 | 1604,468 | 0,1255 |
| 409768 | 0,1800  | 1605,360 | 393693 | 1606,825 | 0,1265 |
| 409769 | 0,1400  | 1607,703 | 393694 | 1609,449 | 0,1255 |
| 409770 | 0,1000  | 1610,162 | 393695 | 1612,423 | 0,1295 |

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|--------|---------|----------|--------|----------|--------|
| 409771 | 0,0600  | 1613,313 | 393696 | 1616,831 | 0,1746 |
| 409772 | 0,0200  | 1617,767 | 393697 | 1620,467 | 0,2883 |
| 409773 | -0,0200 | 1621,271 | 393698 | 1623,925 | 0,4453 |
| 409774 | -0,0600 | 1624,728 | 393699 | 1627,531 | 0,6130 |
| 409775 | -0,1000 | 1628,459 | 393700 | 1630,693 | 0,7876 |
| 409776 | -0,1399 | 1631,603 | 393701 | 1633,928 | 0,9572 |
| 409777 | -0,1799 | 1634,832 | 393702 | 1637,417 | 1,1240 |
| 409778 | -0,2199 | 1638,218 | 393703 | 1640,471 | 1,2819 |
| 409779 | -0,2599 | 1641,366 | 393704 | 1643,850 | 1,4280 |
| 409780 | -0,2999 | 1644,716 | 393705 | 1647,329 | 1,5643 |
| 409781 | -0,3399 | 1648,181 | 393706 | 1650,990 | 1,6869 |
| 409782 | -0,3799 | 1651,910 | 393707 | 1654,270 | 1,8017 |
| 409783 | -0,4199 | 1655,224 | 393708 | 1658,384 | 1,9017 |
| 409784 | -0,4599 | 1659,230 | 393709 | 1661,528 | 1,9919 |
| 409785 | -0,4999 | 1662,427 | 393710 | 1664,968 | 2,0724 |
| 409786 | -0,5399 | 1665,820 | 393711 | 1668,465 | 2,1410 |
| 409787 | -0,5799 | 1669,379 | 393712 | 1672,004 | 2,2008 |
| 409788 | -0,6199 | 1672,918 | 393713 | 1675,605 | 2,2509 |
| 409789 | -0,6599 | 1676,510 | 393714 | 1679,335 | 2,2930 |
| 409790 | -0,6999 | 1680,298 | 393715 | 1683,623 | 2,3254 |
| 409791 | -0,7399 | 1684,488 | 393716 | 1687,801 | 2,3529 |
| 409792 | -0,7799 | 1688,864 | 393717 | 1691,129 | 2,3715 |
| 409793 | -0,8199 | 1691,999 | 393718 | 1694,605 | 2,3842 |
| 409794 | -0,8599 | 1695,536 | 393719 | 1697,872 | 2,3921 |
| 409795 | -0,8998 | 1698,745 | 393720 | 1700,428 | 2,3921 |
| 409796 | -0,9398 | 1701,323 | 393721 | 1704,323 | 2,3882 |
| 409797 | -0,9798 | 1705,137 | 393722 | 1707,545 | 2,3784 |
| 409798 | -1,0198 | 1708,263 | 393723 | 1711,448 | 2,3637 |
| 409799 | -1,0598 | 1712,183 | 393724 | 1715,721 | 2,3440 |
| 409800 | -1,0998 | 1716,529 | 393725 | 1719,260 | 2,3205 |
| 409801 | -1,1398 | 1720,135 | 393726 | 1723,308 | 2,2891 |
| 409802 | 1,3070  | 1727,056 |        |          |        |
| 409803 | 0,2600  | 1732,898 |        |          |        |
| 409804 | 0,2200  | 1736,167 | 393727 | 1737,709 | 0,1265 |
| 409805 | 0,1800  | 1738,539 | 393728 | 1740,925 | 0,1265 |
| 409806 | 0,1400  | 1741,659 | 393729 | 1743,980 | 0,1265 |
| 409807 | 0,1000  | 1744,783 | 393730 | 1747,069 | 0,1324 |
| 409808 | 0,0600  | 1747,938 | 393731 | 1751,206 | 0,1805 |
| 409809 | 0,0200  | 1752,103 | 393732 | 1754,358 | 0,2952 |
| 409810 | -0,0200 | 1755,227 | 393733 | 1758,085 | 0,4561 |
| 409811 | -0,0600 | 1759,004 | 393734 | 1761,251 | 0,6267 |
| 409812 | -0,1000 | 1762,106 | 393735 | 1764,776 | 0,8003 |
| 409813 | -0,1399 | 1765,570 | 393736 | 1767,851 | 0,9700 |
| 409814 | -0,1799 | 1768,809 | 393737 | 1771,388 | 1,1367 |
| 409815 | -0,2199 | 1772,233 | 393738 | 1774,917 | 1,2927 |
| 409816 | -0,2599 | 1775,917 | 393739 | 1779,185 | 1,4378 |
| 409817 | -0,2999 | 1780,141 | 393740 | 1782,449 | 1,5732 |
| 409818 | -0,3399 | 1783,333 | 393741 | 1785,987 | 1,6958 |
| 409819 | -0,3799 | 1786,949 | 393742 | 1790,439 | 1,8095 |
| 409820 | -0,4199 | 1791,263 | 393743 | 1793,581 | 1,9096 |
| 409821 | -0,4599 | 1794,488 | 393744 | 1797,710 | 1,9978 |
| 409822 | -0,4999 | 1798,603 | 393745 | 1802,510 | 2,0792 |
| 409823 | -0,5399 | 1803,396 | 393746 | 1807,177 | 2,1469 |
| 409824 | -0,5799 | 1808,081 | 393747 | 1810,448 | 2,2048 |
| 409825 | -0,6199 | 1811,373 | 393748 | 1814,327 | 2,2538 |
| 409826 | -0,6599 | 1815,214 | 393749 | 1817,621 | 2,2950 |
| 409827 | -0,6999 | 1818,523 | 393750 | 1821,238 | 2,3283 |
| 409828 | -0,7399 | 1822,184 | 393751 | 1824,396 | 2,3548 |
| 409829 | -0,7799 | 1825,266 | 393752 | 1828,236 | 2,3735 |
| 409830 | -0,8199 | 1829,117 | 393753 | 1831,607 | 2,3852 |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 409831 | -0,8599 | 1832,440 | 393754 | 1834,451 | 2,3921 |
| 409832 | -0,8998 | 1835,253 | 393755 | 1837,604 | 2,3931 |
| 409833 | -0,9398 | 1838,468 | 393756 | 1840,557 | 2,3882 |
| 409834 | -0,9798 | 1841,349 | 393757 | 1843,397 | 2,3793 |
| 409835 | -1,0198 | 1844,130 | 393758 | 1846,223 | 2,3637 |
| 409836 | -1,0598 | 1847,022 | 393759 | 1849,276 | 2,3440 |
| 409837 | -1,0998 | 1850,093 | 393760 | 1852,445 | 2,3185 |
| 409838 | -1,1398 | 1853,321 | 393761 | 1855,691 | 2,2891 |
| 409839 | 1,3070  | 1859,508 |        |          |        |
| 409840 | 0,2600  | 1865,389 |        |          |        |
| 409841 | 0,2200  | 1869,356 | 393762 | 1870,734 | 0,1275 |
| 409842 | 0,1800  | 1871,723 | 393763 | 1873,428 | 0,1255 |
| 409843 | 0,1400  | 1874,239 | 393764 | 1875,997 | 0,1265 |
| 409844 | 0,1000  | 1876,857 | 393765 | 1879,158 | 0,1344 |
| 409845 | 0,0600  | 1879,978 | 393766 | 1883,216 | 0,1785 |
| 409846 | 0,0200  | 1884,093 | 393767 | 1886,905 | 0,3031 |
| 409847 | -0,0200 | 1887,777 | 393768 | 1890,113 | 0,4668 |
| 409848 | -0,0600 | 1890,994 | 393769 | 1893,689 | 0,6365 |
| 409849 | -0,1000 | 1894,642 | 393770 | 1896,917 | 0,8111 |
| 409850 | -0,1399 | 1897,772 | 393771 | 1900,494 | 0,9808 |
| 409851 | -0,1799 | 1901,367 | 393772 | 1904,189 | 1,1465 |
| 409852 | -0,2199 | 1905,055 | 393773 | 1911,588 | 1,3025 |
| 409853 | -0,2599 | 1912,446 | 393774 | 1914,910 | 1,4466 |
| 409854 | -0,2999 | 1915,783 | 393775 | 1918,868 | 1,5830 |
| 409855 | -0,3399 | 1919,700 | 393776 | 1922,855 | 1,7036 |
| 409856 | -0,3799 | 1923,782 | 393777 | 1926,386 | 1,8164 |
| 409857 | -0,4199 | 1927,346 | 393778 | 1930,196 | 1,9164 |
| 409858 | -0,4599 | 1931,097 | 393779 | 1934,141 | 2,0047 |
| 409859 | -0,4999 | 1934,986 | 393780 | 1937,749 | 2,0841 |
| 409860 | -0,5399 | 1938,635 | 393781 | 1942,338 | 2,1518 |
| 409861 | -0,5799 | 1943,350 | 393782 | 1946,418 | 2,2107 |
| 409862 | -0,6199 | 1947,453 | 393783 | 1949,797 | 2,2577 |
| 409863 | -0,6599 | 1950,719 | 393784 | 1953,164 | 2,2989 |
| 409864 | -0,6999 | 1954,006 | 393785 | 1956,829 | 2,3303 |
| 409865 | -0,7399 | 1957,678 | 393786 | 1960,232 | 2,3578 |
| 409866 | -0,7799 | 1961,206 | 393787 | 1963,541 | 2,3754 |
| 409867 | -0,8199 | 1964,379 | 393788 | 1966,951 | 2,3882 |
| 409868 | -0,8599 | 1967,903 | 393789 | 1969,549 | 2,3941 |
| 409869 | -0,8998 | 1970,494 | 393790 | 1973,070 | 2,3950 |
| 409870 | -0,9398 | 1973,964 | 393791 | 1977,242 | 2,3911 |
| 409871 | -0,9798 | 1978,067 | 393792 | 1981,077 | 2,3793 |
| 409872 | -1,0198 | 1981,837 | 393793 | 1983,961 | 2,3646 |
| 409873 | -1,0598 | 1984,770 | 393794 | 1987,416 | 2,3450 |
| 409874 | -1,0998 | 1988,263 | 393795 | 1990,585 | 2,3195 |
| 409875 | -1,1398 | 1991,383 | 393796 | 1993,984 | 2,2891 |
| 409876 | 1,3070  | 1997,896 |        |          |        |
| 409877 | 0,2600  | 2003,771 |        |          |        |
| 409878 | 0,2200  | 2006,895 | 393797 | 2008,694 | 0,1265 |
| 409879 | 0,1800  | 2009,551 | 393798 | 2011,357 | 0,1265 |
| 409880 | 0,1400  | 2012,295 | 393799 | 2013,833 | 0,1275 |
| 409881 | 0,1000  | 2014,715 | 393800 | 2018,208 | 0,1324 |
| 409882 | 0,0600  | 2019,231 | 393801 | 2027,799 | 0,1844 |
| 409883 | 0,0200  | 2028,668 | 393802 | 2031,966 | 0,3129 |
| 409884 | -0,0200 | 2032,845 | 393803 | 2035,696 | 0,4796 |
| 409885 | -0,0600 | 2036,541 | 393804 | 2039,204 | 0,6493 |
| 409886 | -0,1000 | 2040,161 | 393805 | 2042,516 | 0,8248 |
| 409887 | -0,1399 | 2043,367 | 393806 | 2045,819 | 0,9945 |
| 409888 | -0,1799 | 2046,871 | 393807 | 2049,838 | 1,1583 |
| 409889 | -0,2199 | 2050,702 | 393808 | 2053,370 | 1,3152 |
| 409890 | -0,2599 | 2054,335 | 393809 | 2057,018 | 1,4584 |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 409891 | -0,2999 | 2057,872 | 393810 | 2060,346 | 1,5928 |
| 409892 | -0,3399 | 2061,306 | 393811 | 2063,754 | 1,7124 |
| 409893 | -0,3799 | 2064,824 | 393812 | 2067,427 | 1,8252 |
| 409894 | -0,4199 | 2068,376 | 393813 | 2070,883 | 1,9243 |
| 409895 | -0,4599 | 2071,769 | 393814 | 2074,180 | 2,0116 |
| 409896 | -0,4999 | 2075,063 | 393815 | 2077,692 | 2,0900 |
| 409897 | -0,5399 | 2078,610 | 393816 | 2081,079 | 2,1567 |
| 409898 | -0,5799 | 2081,968 | 393817 | 2085,104 | 2,2146 |
| 409899 | -0,6199 | 2085,963 | 393818 | 2088,473 | 2,2617 |
| 409900 | -0,6599 | 2089,335 | 393819 | 2091,926 | 2,3019 |
| 409901 | -0,6999 | 2092,867 | 393820 | 2095,215 | 2,3342 |
| 409902 | -0,7399 | 2096,121 | 393821 | 2098,087 | 2,3587 |
| 409903 | -0,7799 | 2099,053 | 393822 | 2102,030 | 2,3774 |
| 409904 | -0,8199 | 2102,872 | 393823 | 2105,824 | 2,3892 |
| 409905 | -0,8599 | 2106,620 | 393824 | 2109,593 | 2,3950 |
| 409906 | -0,8998 | 2110,404 | 393825 | 2112,254 | 2,3960 |
| 409907 | -0,9398 | 2113,138 | 393826 | 2115,194 | 2,3901 |
| 409908 | -0,9798 | 2116,027 | 393827 | 2118,061 | 2,3793 |
| 409909 | -1,0198 | 2118,819 | 393828 | 2122,042 | 2,3656 |
| 409910 | -1,0598 | 2122,848 | 393829 | 2125,164 | 2,3450 |
| 409911 | -1,0998 | 2125,975 | 393830 | 2129,193 | 2,3195 |
| 409912 | -1,1398 | 2129,961 | 393831 | 2133,270 | 2,2881 |
| 409913 | 1,3070  | 2137,067 |        |          |        |
| 409914 | 0,2600  | 2142,790 |        |          |        |
| 409915 | 0,2200  | 2146,115 | 393832 | 2147,919 | 0,1275 |
| 409916 | 0,1800  | 2148,810 | 393833 | 2150,843 | 0,1275 |
| 409917 | 0,1400  | 2151,900 | 393834 | 2153,504 | 0,1275 |
| 409918 | 0,1000  | 2154,412 | 393835 | 2156,183 | 0,1304 |
| 409919 | 0,0600  | 2156,964 | 393836 | 2159,326 | 0,1903 |
| 409920 | 0,0200  | 2160,281 | 393837 | 2163,164 | 0,3227 |
| 409921 | -0,0200 | 2164,093 | 393838 | 2166,660 | 0,4874 |
| 409922 | -0,0600 | 2167,560 | 393839 | 2171,166 | 0,6581 |
| 409923 | -0,1000 | 2172,126 | 393840 | 2174,719 | 0,8327 |
| 409924 | -0,1399 | 2175,550 | 393841 | 2178,565 | 1,0023 |
| 409925 | -0,1799 | 2179,506 | 393842 | 2182,254 | 1,1681 |
| 409926 | -0,2199 | 2183,207 | 393843 | 2186,696 | 1,3240 |
| 409927 | -0,2599 | 2187,519 | 393844 | 2189,912 | 1,4672 |
| 409928 | -0,2999 | 2190,848 | 393845 | 2194,728 | 1,6006 |
| 409929 | -0,3399 | 2195,630 | 393846 | 2197,667 | 1,7212 |
| 409930 | -0,3799 | 2198,695 | 393847 | 2200,962 | 1,8321 |
| 409931 | -0,4199 | 2201,880 | 393848 | 2204,276 | 1,9302 |
| 409932 | -0,4599 | 2205,153 | 393849 | 2208,259 | 2,0174 |
| 409933 | -0,4999 | 2209,127 | 393850 | 2211,487 | 2,0949 |
| 409934 | -0,5399 | 2212,344 | 393851 | 2214,686 | 2,1616 |
| 409935 | -0,5799 | 2215,586 | 393852 | 2218,506 | 2,2185 |
| 409936 | -0,6199 | 2219,376 | 393853 | 2221,697 | 2,2656 |
| 409937 | -0,6599 | 2222,554 | 393854 | 2224,923 | 2,3058 |
| 409938 | -0,6999 | 2225,822 | 393855 | 2228,215 | 2,3362 |
| 409939 | -0,7399 | 2229,171 | 393856 | 2233,117 | 2,3617 |
| 409940 | -0,7799 | 2233,984 | 393857 | 2238,229 | 2,3793 |
| 409941 | -0,8199 | 2239,142 | 393858 | 2241,099 | 2,3901 |
| 409942 | -0,8599 | 2241,937 | 393859 | 2244,409 | 2,3960 |
| 409943 | -0,8998 | 2245,302 | 393860 | 2247,166 | 2,3970 |
| 409944 | -0,9398 | 2248,062 | 393861 | 2250,359 | 2,3921 |
| 409945 | -0,9798 | 2251,191 | 393862 | 2254,045 | 2,3813 |
| 409946 | -1,0198 | 2254,860 | 393863 | 2257,230 | 2,3646 |
| 409947 | -1,0598 | 2258,024 | 393864 | 2260,758 | 2,3450 |
| 409948 | -1,0998 | 2261,586 | 393865 | 2264,747 | 2,3185 |
| 409949 | -1,1398 | 2265,527 | 393866 | 2267,853 | 2,2881 |
| 409950 | 1,3070  | 2271,648 |        |          |        |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 409951 | 0,2600  | 2277,504 |        |          |        |
| 409952 | 0,2200  | 2280,847 | 393867 | 2282,969 | 0,1275 |
| 409953 | 0,1800  | 2283,825 | 393868 | 2286,128 | 0,1255 |
| 409954 | 0,1400  | 2286,935 | 393869 | 2288,754 | 0,1275 |
| 409955 | 0,1000  | 2289,586 | 393870 | 2291,636 | 0,1304 |
| 409956 | 0,0600  | 2332,417 | 393871 | 2334,020 | 0,1913 |
| 409957 | 0,0200  | 2335,017 | 393872 | 2337,349 | 0,3403 |
| 409958 | -0,0200 | 2338,215 | 393873 | 2341,267 | 0,5041 |
| 409959 | -0,0600 | 2342,059 | 393874 | 2345,001 | 0,6767 |
| 409960 | -0,1000 | 2345,886 | 393875 | 2348,387 | 0,8513 |
| 409961 | -0,1399 | 2349,238 | 393876 | 2351,607 | 1,0220 |
| 409962 | -0,1799 | 2352,512 | 393877 | 2355,499 | 1,1838 |
| 409963 | -0,2199 | 2356,503 | 393878 | 2358,843 | 1,3397 |
| 409964 | -0,2599 | 2359,711 | 393879 | 2362,346 | 1,4800 |
| 409965 | -0,2999 | 2363,328 | 393880 | 2366,605 | 1,6124 |
| 409966 | -0,3399 | 2367,439 | 393881 | 2369,913 | 1,7311 |
| 409967 | -0,3799 | 2370,764 | 393882 | 2373,321 | 1,8409 |
| 409968 | -0,4199 | 2374,199 | 393883 | 2377,242 | 1,9380 |
| 409969 | -0,4599 | 2378,139 | 393884 | 2381,209 | 2,0243 |
| 409970 | -0,4999 | 2382,073 | 393885 | 2384,265 | 2,1008 |
| 409971 | -0,5399 | 2385,111 | 393886 | 2388,489 | 2,1665 |
| 409972 | -0,5799 | 2389,398 | 393887 | 2391,825 | 2,2234 |
| 409973 | -0,6199 | 2392,673 | 393888 | 2395,881 | 2,2695 |
| 409974 | -0,6599 | 2396,767 | 393889 | 2399,240 | 2,3087 |
| 409975 | -0,6999 | 2400,145 | 393890 | 2402,796 | 2,3391 |
| 409976 | -0,7399 | 2403,742 | 393891 | 2406,357 | 2,3646 |
| 409977 | -0,7799 | 2407,300 | 393892 | 2410,606 | 2,3803 |
| 409978 | -0,8199 | 2411,468 | 393893 | 2414,977 | 2,3921 |
| 409979 | -0,8599 | 2416,020 | 393894 | 2418,419 | 2,3980 |
| 409980 | -0,8998 | 2419,346 | 393895 | 2420,787 | 2,3980 |
| 409981 | -0,9398 | 2421,704 | 393896 | 2424,014 | 2,3911 |
| 409982 | -0,9798 | 2424,851 | 393897 | 2427,803 | 2,3803 |
| 409983 | -1,0198 | 2428,539 | 393898 | 2430,810 | 2,3656 |
| 409984 | -1,0598 | 2431,632 | 393899 | 2433,721 | 2,3440 |
| 409985 | -1,0998 | 2434,463 | 393900 | 2436,826 | 2,3185 |
| 409986 | -1,1398 | 2437,618 | 393901 | 2440,231 | 2,2872 |
| 409987 | -1,1798 | 2441,160 | 393902 | 2443,485 | 2,2499 |
| 409988 | -1,2198 | 2444,288 | 393903 | 2446,989 | 2,2057 |
| 409989 | -1,2598 | 2447,760 | 393904 | 2450,732 | 2,1518 |
| 409990 | -1,2998 | 2451,576 | 393905 | 2454,930 | 2,0890 |
| 409991 | -1,3398 | 2455,672 | 393906 | 2458,530 | 2,0322 |
| 409992 | -1,3798 | 2459,404 | 393907 | 2462,152 | 1,9713 |
| 409993 | -1,4198 | 2462,941 | 393908 | 2465,687 | 1,8939 |
| 409994 | -1,4598 | 2466,451 | 393909 | 2468,750 | 1,7821 |
| 409995 | -1,4998 | 2469,547 | 393910 | 2474,126 | 1,6094 |
| 409996 | -1,5398 | 2475,013 | 393911 | 2479,000 | 0,0049 |
| 409997 | 1,3070  | 2483,140 |        |          |        |
| 409998 | 0,2600  | 2489,346 |        |          |        |
| 409999 | 0,2200  | 2492,550 | 393912 | 2494,027 | 0,1285 |
| 410000 | 0,1800  | 2494,913 | 393913 | 2496,957 | 0,1265 |
| 410001 | 0,1400  | 2497,691 | 393914 | 2500,964 | 0,1265 |
| 410002 | 0,1000  | 2501,758 | 393915 | 2503,794 | 0,1275 |
| 410003 | 0,0600  | 2504,590 | 393916 | 2507,854 | 0,2128 |
| 410004 | 0,0200  | 2508,708 | 393917 | 2511,723 | 0,3599 |
| 410005 | -0,0200 | 2512,610 | 393918 | 2515,146 | 0,5257 |
| 410006 | -0,0600 | 2515,978 | 393919 | 2518,302 | 0,7003 |
| 410007 | -0,1000 | 2519,205 | 393920 | 2521,527 | 0,8748 |
| 410008 | -0,1399 | 2522,472 | 393921 | 2524,703 | 1,0426 |
| 410009 | -0,1799 | 2525,653 | 393922 | 2528,851 | 1,2044 |
| 410010 | -0,2199 | 2529,767 | 393923 | 2532,049 | 1,3584 |

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| 410011 | -0,2599 | 2532,924 | 393924 | 2535,686 | 1,4976 |
| 410012 | -0,2999 | 2536,561 | 393925 | 2539,501 | 1,6300 |
| 410013 | -0,3399 | 2540,377 | 393926 | 2543,472 | 1,7477 |
| 410014 | -0,3799 | 2544,410 | 393927 | 2546,811 | 1,8556 |
| 410015 | -0,4199 | 2547,632 | 393928 | 2550,785 | 1,9507 |
| 410016 | -0,4599 | 2551,615 | 393929 | 2553,949 | 2,0361 |
| 410017 | -0,4999 | 2554,890 | 393930 | 2557,810 | 2,1116 |
| 410018 | -0,5399 | 2558,788 | 393931 | 2561,103 | 2,1753 |
| 410019 | -0,5799 | 2561,929 | 393932 | 2564,182 | 2,2303 |
| 410020 | -0,6199 | 2565,072 | 393933 | 2567,327 | 2,2754 |
| 410021 | -0,6599 | 2568,201 | 393934 | 2570,843 | 2,3146 |
| 410022 | -0,6999 | 2571,730 | 393935 | 2574,513 | 2,3460 |
| 410023 | -0,7399 | 2575,401 | 393936 | 2577,743 | 2,3695 |
| 410024 | -0,7799 | 2578,774 | 393937 | 2581,218 | 2,3852 |
| 410025 | -0,8199 | 2582,151 | 393938 | 2584,569 | 2,3970 |
| 410026 | -0,8599 | 2585,471 | 393939 | 2587,539 | 2,4029 |
| 410027 | -0,8998 | 2588,515 | 393940 | 2591,143 | 2,4029 |
| 410028 | -0,9398 | 2592,046 | 393941 | 2594,891 | 2,3970 |
| 410029 | -0,9798 | 2595,780 | 393942 | 2598,107 | 2,3872 |
| 410030 | -1,0198 | 2598,872 | 393943 | 2601,252 | 2,3715 |
| 410031 | -1,0598 | 2602,028 | 393944 | 2605,534 | 2,3519 |
| 410032 | -1,0998 | 2606,383 | 393945 | 2608,687 | 2,3264 |
| 410033 | -1,1398 | 2609,396 | 393946 | 2613,603 | 2,2960 |
| 410034 | -1,1798 | 2614,482 | 393947 | 2616,887 | 2,2587 |
| 410035 | -1,2198 | 2617,763 | 393948 | 2620,377 | 2,2156 |
| 410036 | -1,2598 | 2621,248 | 393949 | 2623,577 | 2,1636 |
| 410037 | -1,2998 | 2624,358 | 393950 | 2626,955 | 2,1037 |
| 410038 | -1,3398 | 2627,711 | 393951 | 2630,463 | 2,0488 |
| 410039 | -1,3798 | 2631,282 | 393952 | 2633,931 | 1,9900 |
| 410040 | -1,4198 | 2634,719 | 393953 | 2637,003 | 1,9164 |
| 410041 | -1,4598 | 2637,783 | 393954 | 2641,096 | 0,0059 |
| 410042 | -1,4998 | 2641,895 | 393955 | 2643,406 | 0,0059 |
| 410043 | -1,5398 | 2644,213 | 393956 | 2645,940 | 0,0059 |
| 410044 | 1,3070  | 2650,132 |        |          |        |
| 410045 | 0,2600  | 2656,241 |        |          |        |
| 410046 | 0,2200  | 2659,125 | 393957 | 2660,817 | 0,1285 |
| 410047 | 0,1800  | 2661,830 | 393958 | 2664,458 | 0,1265 |
| 410048 | 0,1400  | 2665,351 | 393959 | 2668,562 | 0,1295 |
| 410049 | 0,1000  | 2669,384 | 393960 | 2671,169 | 0,1334 |
| 410050 | 0,0600  | 2672,079 | 393961 | 2674,987 | 0,2226 |
| 410051 | 0,0200  | 2676,000 | 393962 | 2679,079 | 0,3717 |
| 410052 | -0,0200 | 2679,990 | 393963 | 2682,658 | 0,5414 |
| 410053 | -0,0600 | 2683,584 | 393964 | 2686,639 | 0,7140 |
| 410054 | -0,1000 | 2687,483 | 393965 | 2690,655 | 0,8896 |
| 410055 | -0,1399 | 2691,467 | 393966 | 2693,859 | 1,0573 |
| 410056 | -0,1799 | 2694,860 | 393967 | 2697,539 | 1,2211 |
| 410057 | -0,2199 | 2698,488 | 393968 | 2700,918 | 1,3721 |
| 410058 | -0,2599 | 2701,841 | 393969 | 2704,233 | 1,5114 |
| 410059 | -0,2999 | 2705,108 | 393970 | 2708,034 | 1,6408 |
| 410060 | -0,3399 | 2708,873 | 393971 | 2711,181 | 1,7575 |
| 410061 | -0,3799 | 2712,065 | 393972 | 2714,401 | 1,8644 |
| 410062 | -0,4199 | 2715,343 | 393973 | 2718,010 | 1,9596 |
| 410063 | -0,4599 | 2718,889 | 393974 | 2721,283 | 2,0439 |
| 410064 | -0,4999 | 2722,203 | 393975 | 2724,690 | 2,1165 |
| 410065 | -0,5399 | 2725,626 | 393976 | 2728,748 | 2,1802 |
| 410066 | -0,5799 | 2729,709 | 393977 | 2732,108 | 2,2342 |
| 410067 | -0,6199 | 2733,011 | 393978 | 2735,474 | 2,2793 |
| 410068 | -0,6599 | 2736,398 | 393979 | 2738,748 | 2,3176 |
| 410069 | -0,6999 | 2739,618 | 393980 | 2741,992 | 2,3480 |
| 410070 | -0,7399 | 2742,865 | 393981 | 2745,683 | 2,3715 |

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| 410071 | -0,7799 | 2746,593 | 393982 | 2749,590 | 2,3882 |
| 410072 | -0,8199 | 2750,501 | 393983 | 2752,878 | 2,3980 |
| 410073 | -0,8599 | 2753,703 | 393984 | 2758,720 | 2,4048 |
| 410074 | -0,8998 | 2759,607 | 393985 | 2760,980 | 2,4039 |
| 410075 | -0,9398 | 2761,901 | 393986 | 2764,854 | 2,3980 |
| 410076 | -0,9798 | 2765,699 | 393987 | 2768,064 | 2,3892 |
| 410077 | -1,0198 | 2768,825 | 393988 | 2770,769 | 2,3725 |
| 410078 | -1,0598 | 2771,589 | 393989 | 2773,635 | 2,3529 |
| 410079 | -1,0998 | 2774,400 | 393990 | 2776,721 | 2,3264 |
| 410080 | -1,1398 | 2777,569 | 393991 | 2779,830 | 2,2970 |
| 410081 | -1,1798 | 2780,643 | 393992 | 2783,547 | 2,2597 |
| 410082 | -1,2198 | 2784,321 | 393993 | 2787,363 | 2,2156 |
| 410083 | -1,2598 | 2788,152 | 393994 | 2790,339 | 2,1646 |
| 410084 | -1,2998 | 2791,099 | 393995 | 2793,673 | 2,1067 |
| 410085 | -1,3398 | 2794,470 | 393996 | 2796,812 | 2,0508 |
| 410086 | -1,3798 | 2797,728 | 393997 | 2801,265 | 0,0059 |
| 410087 | -1,4198 | 2802,147 | 393998 | 2804,293 | 0,0069 |
| 410088 | -1,4598 | 2805,011 | 393999 | 2806,817 | 0,0069 |
| 410089 | -1,4998 | 2807,541 | 394000 | 2809,208 | 0,0069 |
| 410090 | -1,5398 | 2810,027 | 394001 | 2811,456 | 0,0069 |
| 410091 | 1,3070  | 2815,626 |        |          |        |
| 410092 | 0,2600  | 2821,727 |        |          |        |
| 410093 | 0,2200  | 2824,739 | 394002 | 2826,798 | 0,1275 |
| 410094 | 0,1800  | 2827,667 | 394003 | 2829,424 | 0,1255 |
| 410095 | 0,1400  | 2830,324 | 394004 | 2832,797 | 0,1255 |
| 410096 | 0,1000  | 2833,594 | 394005 | 2836,704 | 0,1344 |
| 410097 | 0,0600  | 2837,492 | 394006 | 2840,090 | 0,2334 |
| 410098 | 0,0200  | 2841,079 | 394007 | 2843,946 | 0,3874 |
| 410099 | -0,0200 | 2844,868 | 394008 | 2847,554 | 0,5581 |
| 410100 | -0,0600 | 2848,539 | 394009 | 2851,230 | 0,7307 |
| 410101 | -0,1000 | 2852,143 | 394010 | 2854,533 | 0,9053 |
| 410102 | -0,1399 | 2855,473 | 394011 | 2857,739 | 1,0730 |
| 410103 | -0,1799 | 2858,765 | 394012 | 2861,254 | 1,2348 |
| 410104 | -0,2199 | 2862,073 | 394013 | 2865,411 | 1,3848 |
| 410105 | -0,2599 | 2866,353 | 394014 | 2868,656 | 1,5231 |
| 410106 | -0,2999 | 2869,613 | 394015 | 2871,992 | 1,6526 |
| 410107 | -0,3399 | 2872,967 | 394016 | 2876,694 | 1,7683 |
| 410108 | -0,3799 | 2877,639 | 394017 | 2880,232 | 1,8733 |
| 410109 | -0,4199 | 2881,117 | 394018 | 2883,821 | 1,9674 |
| 410110 | -0,4599 | 2884,733 | 394019 | 2887,258 | 2,0518 |
| 410111 | -0,4999 | 2888,168 | 394020 | 2890,785 | 2,1243 |
| 410112 | -0,5399 | 2891,656 | 394021 | 2894,206 | 2,1871 |
| 410113 | -0,5799 | 2895,123 | 394022 | 2898,080 | 2,2401 |
| 410114 | -0,6199 | 2898,878 | 394023 | 2901,208 | 2,2852 |
| 410115 | -0,6599 | 2902,238 | 394024 | 2904,793 | 2,3215 |
| 410116 | -0,6999 | 2905,703 | 394025 | 2907,999 | 2,3519 |
| 410117 | -0,7399 | 2908,939 | 394026 | 2912,133 | 2,3754 |
| 410118 | -0,7799 | 2913,032 | 394027 | 2915,074 | 2,3911 |
| 410119 | -0,8199 | 2915,926 | 394028 | 2918,193 | 2,4019 |
| 410120 | -0,8599 | 2919,120 | 394029 | 2921,490 | 2,4068 |
| 410121 | -0,8998 | 2922,369 | 394030 | 2924,361 | 2,4068 |
| 410122 | -0,9398 | 2925,194 | 394031 | 2927,446 | 2,4009 |
| 410123 | -0,9798 | 2928,322 | 394032 | 2930,549 | 2,3901 |
| 410124 | -1,0198 | 2931,307 | 394033 | 2933,999 | 2,3754 |
| 410125 | -1,0598 | 2934,834 | 394034 | 2937,114 | 2,3548 |
| 410126 | -1,0998 | 2937,918 | 394035 | 2940,023 | 2,3293 |
| 410127 | -1,1398 | 2940,832 | 394036 | 2943,878 | 2,2999 |
| 410128 | -1,1798 | 2944,754 | 394037 | 2947,057 | 2,2626 |
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| 410130 | -1,2598 | 2952,606 | 394039 | 2954,991 | 2,1675 |

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| 410131 | -1,2998 | 2955,819 | 394040 | 2959,263 | 0,0059 |
| 410132 | -1,3398 | 2960,010 | 394041 | 2962,360 | 0,0049 |
| 410133 | -1,3798 | 2963,179 | 394042 | 2965,838 | 0,0069 |
| 410134 | -1,4198 | 2966,709 | 394043 | 2968,075 | 0,0059 |
| 410135 | -1,4598 | 2968,903 | 394044 | 2970,882 | 0,0049 |
| 410136 | -1,4998 | 2971,695 | 394045 | 2973,166 | 0,0059 |
| 410137 | -1,5398 | 2973,897 | 394046 | 2975,541 | 0,0049 |
| 410138 | -1,5798 | 2976,331 | 394047 | 2978,152 | 0,0049 |
| 410139 | -1,6198 | 2978,981 | 394048 | 2980,710 | 0,0049 |
| 410140 | -1,6597 | 2981,492 | 394049 | 2984,415 | 0,0049 |
| 410141 | -1,6997 | 2985,205 | 394050 | 2986,885 | 0,0049 |
| 410142 | -1,7397 | 2987,746 | 394051 | 2990,868 | 0,0059 |
| 410143 | -1,7797 | 2991,738 | 394052 | 2993,634 | 0,0049 |
| 410144 | -1,8197 | 2994,448 | 394053 | 2997,224 | 0,0059 |
| 410145 | -1,8597 | 2998,008 | 394054 | 2999,976 | 0,0049 |
| 410146 | -1,8997 | 3000,746 | 394055 | 3004,699 | 0,0059 |
| 410147 | -1,9397 | 3005,532 | 394056 | 3007,976 | 0,0059 |
| 410148 | -1,9797 | 3008,822 | 394057 | 3010,866 | 0,0049 |
| 410149 | -2,0197 | 3011,621 | 394058 | 3014,209 | 0,0049 |
| 410150 | -2,0597 | 3014,998 | 394059 | 3017,568 | 0,0059 |
| 410151 | -2,0997 | 3018,383 | 394060 | 3020,125 | 0,0049 |
| 410152 | -2,1397 | 3020,887 | 394061 | 3023,196 | 0,0049 |
| 410153 | 1,3070  | 3028,123 |        |          |        |
| 410154 | 0,2600  | 3034,382 |        |          |        |
| 410155 | 0,2200  | 3037,753 | 394062 | 3040,757 | 0,1275 |
| 410156 | 0,1800  | 3041,668 | 394063 | 3044,566 | 0,1197 |
| 410157 | 0,1400  | 3045,298 | 394064 | 3047,661 | 0,1285 |
| 410158 | 0,1000  | 3048,563 | 394065 | 3053,272 | 0,1344 |
| 410159 | 0,0600  | 3054,194 | 394066 | 3057,724 | 0,2452 |
| 410160 | 0,0200  | 3058,743 | 394067 | 3061,961 | 0,4041 |
| 410161 | -0,0200 | 3062,840 | 394068 | 3065,839 | 0,5796 |
| 410162 | -0,0600 | 3066,717 | 394069 | 3069,076 | 0,7542 |
| 410163 | -0,1000 | 3070,082 | 394070 | 3074,434 | 0,9268 |
| 410164 | -0,1399 | 3075,279 | 394071 | 3078,342 | 1,0936 |
| 410165 | -0,1799 | 3079,276 | 394072 | 3082,282 | 1,2544 |
| 410166 | -0,2199 | 3083,209 | 394073 | 3085,507 | 1,4045 |
| 410167 | -0,2599 | 3086,492 | 394074 | 3089,565 | 1,5408 |
| 410168 | -0,2999 | 3090,494 | 394075 | 3092,863 | 1,6683 |
| 410169 | -0,3399 | 3093,762 | 394076 | 3096,031 | 1,7821 |
| 410170 | -0,3799 | 3096,927 | 394077 | 3099,227 | 1,8860 |
| 410171 | -0,4199 | 3100,211 | 394078 | 3102,583 | 1,9782 |
| 410172 | -0,4599 | 3103,544 | 394079 | 3106,257 | 2,0606 |
| 410173 | -0,4999 | 3107,183 | 394080 | 3109,515 | 2,1322 |
| 410174 | -0,5399 | 3110,410 | 394081 | 3113,727 | 2,1920 |
| 410175 | -0,5799 | 3114,739 | 394082 | 3117,168 | 2,2450 |
| 410176 | -0,6199 | 3117,992 | 394083 | 3121,009 | 2,2881 |
| 410177 | -0,6599 | 3121,944 | 394084 | 3124,744 | 2,3244 |
| 410178 | -0,6999 | 3125,623 | 394085 | 3128,208 | 2,3538 |
| 410179 | -0,7399 | 3129,130 | 394086 | 3131,481 | 2,3774 |
| 410180 | -0,7799 | 3132,530 | 394087 | 3134,603 | 2,3931 |
| 410181 | -0,8199 | 3135,442 | 394088 | 3138,203 | 2,4039 |
| 410182 | -0,8599 | 3139,126 | 394089 | 3141,261 | 2,4078 |
| 410183 | -0,8998 | 3142,160 | 394090 | 3145,251 | 2,4078 |
| 410184 | -0,9398 | 3146,100 | 394091 | 3148,298 | 2,4019 |
| 410185 | -0,9798 | 3149,296 | 394092 | 3151,331 | 2,3921 |
| 410186 | -1,0198 | 3152,158 | 394093 | 3154,508 | 2,3764 |
| 410187 | -1,0598 | 3155,336 | 394094 | 3157,695 | 2,3558 |
| 410188 | -1,0998 | 3158,469 | 394095 | 3160,832 | 2,3313 |
| 410189 | -1,1398 | 3161,611 | 394096 | 3164,160 | 2,3009 |
| 410190 | -1,1798 | 3165,076 | 394097 | 3167,315 | 2,2646 |

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| 410191 | -1,2198 | 3168,059 | 394098 | 3170,737 | 2,2224 |
| 410192 | -1,2598 | 3171,494 | 394099 | 3174,213 | 2,1704 |
| 410193 | -1,2998 | 3175,006 | 394100 | 3177,326 | 2,1175 |
| 410194 | -1,3398 | 3178,143 | 394101 | 3180,530 | 2,0635 |
| 410195 | -1,3798 | 3181,410 | 394102 | 3184,361 | 2,0086 |
| 410196 | -1,4198 | 3185,138 | 394103 | 3188,639 | 0,0069 |
| 410197 | -1,4598 | 3189,445 | 394104 | 3191,142 | 0,0069 |
| 410198 | -1,4998 | 3191,950 | 394105 | 3193,423 | 0,0069 |
| 410199 | -1,5398 | 3194,172 | 394106 | 3196,661 | 0,0059 |
| 410200 | 1,3070  | 3200,852 |        |          |        |
| 410201 | 0,2600  | 3207,115 |        |          |        |
| 410202 | 0,2200  | 3211,982 | 394107 | 3213,873 | 0,1275 |
| 410203 | 0,1800  | 3214,785 | 394108 | 3218,067 | 0,1206 |
| 410204 | 0,1400  | 3218,881 | 394109 | 3222,134 | 0,1285 |
| 410205 | 0,1000  | 3223,048 | 394110 | 3228,062 | 0,1422 |
| 410206 | 0,0600  | 3228,937 | 394111 | 3231,956 | 0,2589 |
| 410207 | 0,0200  | 3232,996 | 394112 | 3235,400 | 0,4217 |
| 410208 | -0,0200 | 3236,417 | 394113 | 3240,739 | 0,5953 |
| 410209 | -0,0600 | 3241,691 | 394114 | 3244,062 | 0,7709 |
| 410210 | -0,1000 | 3245,085 | 394115 | 3248,081 | 0,9415 |
| 410211 | -0,1399 | 3249,013 | 394116 | 3251,700 | 1,1073 |
| 410212 | -0,1799 | 3252,593 | 394117 | 3255,416 | 1,2681 |
| 410213 | -0,2199 | 3256,254 | 394118 | 3260,214 | 1,4162 |
| 410214 | -0,2599 | 3261,240 | 394119 | 3263,573 | 1,5526 |
| 410215 | -0,2999 | 3264,395 | 394120 | 3267,327 | 1,6781 |
| 410216 | -0,3399 | 3268,166 | 394121 | 3270,757 | 1,7919 |
| 410217 | -0,3799 | 3271,690 | 394122 | 3274,071 | 1,8948 |
| 410218 | -0,4199 | 3274,933 | 394123 | 3277,271 | 1,9870 |
| 410219 | -0,4599 | 3278,235 | 394124 | 3280,582 | 2,0675 |
| 410220 | -0,4999 | 3281,562 | 394125 | 3284,756 | 2,1371 |
| 410221 | -0,5399 | 3285,628 | 394126 | 3288,219 | 2,1969 |
| 410222 | -0,5799 | 3289,213 | 394127 | 3292,123 | 2,2499 |
| 410223 | -0,6199 | 3293,009 | 394128 | 3295,292 | 2,2940 |
| 410224 | -0,6599 | 3296,199 | 394129 | 3298,732 | 2,3283 |
| 410225 | -0,6999 | 3299,741 | 394130 | 3302,111 | 2,3568 |
| 410226 | -0,7399 | 3302,924 | 394131 | 3305,062 | 2,3803 |
| 410227 | -0,7799 | 3306,050 | 394132 | 3308,675 | 2,3960 |
| 410228 | -0,8199 | 3309,693 | 394133 | 3313,403 | 2,4058 |
| 410229 | -0,8599 | 3314,293 | 394134 | 3316,349 | 2,4107 |
| 410230 | -0,8998 | 3317,216 | 394135 | 3318,928 | 2,4088 |
| 410231 | -0,9398 | 3319,690 | 394136 | 3322,284 | 2,4029 |
| 410232 | -0,9798 | 3323,155 | 394137 | 3325,441 | 2,3921 |
| 410233 | -1,0198 | 3326,200 | 394138 | 3328,556 | 2,3774 |
| 410234 | -1,0598 | 3329,365 | 394139 | 3331,705 | 2,3568 |
| 410235 | -1,0998 | 3332,447 | 394140 | 3334,835 | 2,3313 |
| 410236 | -1,1398 | 3335,670 | 394141 | 3337,938 | 2,2999 |
| 410237 | -1,1798 | 3338,777 | 394142 | 3341,065 | 2,2646 |
| 410238 | -1,2198 | 3341,867 | 394143 | 3344,235 | 2,2214 |
| 410239 | -1,2598 | 3345,035 | 394144 | 3347,810 | 2,1695 |
| 410240 | -1,2998 | 3348,760 | 394145 | 3352,073 | 2,1175 |
| 410241 | -1,3398 | 3352,852 | 394146 | 3355,226 | 2,0655 |
| 410242 | -1,3798 | 3356,061 | 394147 | 3358,517 | 2,0086 |
| 410243 | -1,4198 | 3359,353 | 394148 | 3362,157 | 1,9419 |
| 410244 | -1,4598 | 3362,965 | 394149 | 3365,377 | 0,0078 |
| 410245 | -1,4998 | 3366,206 | 394150 | 3367,917 | 0,0069 |
| 410246 | -1,5398 | 3368,715 | 394151 | 3370,091 | 0,0069 |
| 410247 | 1,3070  | 3374,318 |        |          |        |
| 410248 | 0,2600  | 3380,742 |        |          |        |
| 410249 | 0,2200  | 3384,025 | 394152 | 3386,137 | 0,1285 |
| 410250 | 0,1800  | 3387,093 | 394153 | 3388,751 | 0,1236 |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 410251 | 0,1400  | 3389,578 | 394154 | 3393,077 | 0,1285 |
| 410252 | 0,1000  | 3393,920 | 394155 | 3396,826 | 0,1501 |
| 410253 | 0,0600  | 3397,633 | 394156 | 3400,849 | 0,2697 |
| 410254 | 0,0200  | 3401,811 | 394157 | 3405,371 | 0,4315 |
| 410255 | -0,0200 | 3406,412 | 394158 | 3412,011 | 0,6091 |
| 410256 | -0,0600 | 3412,899 | 394159 | 3415,983 | 0,7836 |
| 410257 | -0,1000 | 3416,873 | 394160 | 3419,221 | 0,9543 |
| 410258 | -0,1399 | 3420,209 | 394161 | 3422,862 | 1,1220 |
| 410259 | -0,1799 | 3423,826 | 394162 | 3427,098 | 1,2809 |
| 410260 | -0,2199 | 3427,965 | 394163 | 3430,960 | 1,4290 |
| 410261 | -0,2599 | 3431,823 | 394164 | 3434,737 | 1,5633 |
| 410262 | -0,2999 | 3435,638 | 394165 | 3438,005 | 1,6889 |
| 410263 | -0,3399 | 3438,911 | 394166 | 3441,319 | 1,8017 |
| 410264 | -0,3799 | 3442,169 | 394167 | 3444,587 | 1,9037 |
| 410265 | -0,4199 | 3445,455 | 394168 | 3448,145 | 1,9949 |
| 410266 | -0,4599 | 3449,047 | 394169 | 3451,719 | 2,0743 |
| 410267 | -0,4999 | 3452,689 | 394170 | 3456,111 | 2,1430 |
| 410268 | -0,5399 | 3456,958 | 394171 | 3459,399 | 2,2018 |
| 410269 | -0,5799 | 3460,349 | 394172 | 3463,007 | 2,2538 |
| 410270 | -0,6199 | 3463,851 | 394173 | 3466,776 | 2,2950 |
| 410271 | -0,6599 | 3467,774 | 394174 | 3470,387 | 2,3313 |
| 410272 | -0,6999 | 3471,338 | 394175 | 3473,622 | 2,3597 |
| 410273 | -0,7399 | 3474,548 | 394176 | 3477,467 | 2,3823 |
| 410274 | -0,7799 | 3478,457 | 394177 | 3481,207 | 2,3980 |
| 410275 | -0,8199 | 3482,105 | 394178 | 3484,262 | 2,4068 |
| 410276 | -0,8599 | 3485,103 | 394179 | 3487,725 | 2,4097 |
| 410277 | -0,8998 | 3488,589 | 394180 | 3491,621 | 2,4107 |
| 410278 | -0,9398 | 3492,551 | 394181 | 3496,307 | 2,4039 |
| 410279 | -0,9798 | 3497,103 | 394182 | 3499,655 | 2,3931 |
| 410280 | -1,0198 | 3500,447 | 394183 | 3503,136 | 2,3784 |
| 410281 | -1,0598 | 3503,896 | 394184 | 3506,295 | 2,3578 |
| 410282 | -1,0998 | 3507,130 | 394185 | 3509,414 | 2,3323 |
| 410283 | -1,1398 | 3510,230 | 394186 | 3513,758 | 2,3019 |
| 410284 | -1,1798 | 3514,641 | 394187 | 3516,733 | 2,2656 |
| 410285 | -1,2198 | 3517,526 | 394188 | 3519,929 | 2,2234 |
| 410286 | -1,2598 | 3520,737 | 394189 | 3523,075 | 2,1714 |
| 410287 | -1,2998 | 3523,952 | 394190 | 3526,310 | 2,1194 |
| 410288 | -1,3398 | 3527,108 | 394191 | 3529,505 | 0,0069 |
| 410289 | -1,3798 | 3530,319 | 394192 | 3531,673 | 0,0069 |
| 410290 | -1,4198 | 3532,461 | 394193 | 3534,124 | 0,0059 |
| 410291 | -1,4598 | 3534,922 | 394194 | 3536,350 | 0,0069 |
| 410292 | -1,4998 | 3537,292 | 394195 | 3539,011 | 0,0059 |
| 410293 | -1,5398 | 3539,841 | 394196 | 3541,285 | 0,0069 |
| 410294 | 1,3070  | 3545,525 |        |          |        |
| 410295 | 0,2600  | 3551,866 |        |          |        |
| 410296 | 0,2200  | 3554,933 | 394197 | 3557,243 | 0,1275 |
| 410297 | 0,1800  | 3558,119 | 394198 | 3560,471 | 0,1148 |
| 410298 | 0,1400  | 3561,288 | 394199 | 3563,275 | 0,1304 |
| 410299 | 0,1000  | 3564,215 | 394200 | 3566,935 | 0,1550 |
| 410300 | 0,0600  | 3567,930 | 394201 | 3571,208 | 0,2825 |
| 410301 | 0,0200  | 3572,227 | 394202 | 3574,592 | 0,4462 |
| 410302 | -0,0200 | 3575,482 | 394203 | 3578,172 | 0,6238 |
| 410303 | -0,0600 | 3579,107 | 394204 | 3582,125 | 0,7964 |
| 410304 | -0,1000 | 3583,025 | 394205 | 3586,672 | 0,9690 |
| 410305 | -0,1399 | 3587,647 | 394206 | 3590,338 | 1,1357 |
| 410306 | -0,1799 | 3591,291 | 394207 | 3593,917 | 1,2956 |
| 410307 | -0,2199 | 3594,861 | 394208 | 3597,473 | 1,4408 |
| 410308 | -0,2599 | 3598,436 | 394209 | 3601,969 | 1,5741 |
| 410309 | -0,2999 | 3602,871 | 394210 | 3606,113 | 1,6987 |
| 410310 | -0,3399 | 3607,059 | 394211 | 3610,100 | 1,8095 |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 410311 | -0,3799 | 3610,986 | 394212 | 3613,305 | 1,9115 |
| 410312 | -0,4199 | 3614,211 | 394213 | 3616,541 | 2,0008 |
| 410313 | -0,4599 | 3617,486 | 394214 | 3620,219 | 2,0802 |
| 410314 | -0,4999 | 3621,131 | 394215 | 3623,813 | 2,1489 |
| 410315 | -0,5399 | 3624,839 | 394216 | 3627,150 | 2,2067 |
| 410316 | -0,5799 | 3628,042 | 394217 | 3630,371 | 2,2577 |
| 410317 | -0,6199 | 3631,432 | 394218 | 3633,894 | 2,2999 |
| 410318 | -0,6599 | 3634,864 | 394219 | 3637,203 | 2,3342 |
| 410319 | -0,6999 | 3638,125 | 394220 | 3641,527 | 2,3607 |
| 410320 | -0,7399 | 3642,486 | 394221 | 3644,545 | 2,3833 |
| 410321 | -0,7799 | 3645,422 | 394222 | 3648,171 | 2,3990 |
| 410322 | -0,8199 | 3649,134 | 394223 | 3651,172 | 2,4078 |
| 410323 | -0,8599 | 3652,155 | 394224 | 3653,969 | 2,4107 |
| 410324 | -0,8998 | 3654,836 | 394225 | 3656,258 | 2,4107 |
| 410325 | -0,9398 | 3657,117 | 394226 | 3660,190 | 2,4048 |
| 410326 | -0,9798 | 3661,089 | 394227 | 3663,140 | 2,3931 |
| 410327 | -1,0198 | 3663,937 | 394228 | 3666,647 | 2,3764 |
| 410328 | -1,0598 | 3667,446 | 394229 | 3670,030 | 2,3548 |
| 410329 | -1,0998 | 3670,830 | 394230 | 3673,291 | 2,3303 |
| 410330 | -1,1398 | 3674,211 | 394231 | 3676,649 | 2,2999 |
| 410331 | -1,1798 | 3677,537 | 394232 | 3679,860 | 2,2626 |
| 410332 | -1,2198 | 3680,668 | 394233 | 3683,636 | 2,2195 |
| 410333 | -1,2598 | 3684,453 | 394234 | 3686,833 | 2,1685 |
| 410334 | -1,2998 | 3687,645 | 394235 | 3690,305 | 2,1175 |
| 410335 | -1,3398 | 3691,148 | 394236 | 3694,512 | 2,0655 |
| 410336 | -1,3798 | 3695,372 | 394237 | 3697,764 | 2,0106 |
| 410337 | -1,4198 | 3698,612 | 394238 | 3701,305 | 1,9468 |
| 410338 | -1,4598 | 3702,178 | 394239 | 3705,465 | 0,0088 |
| 410339 | -1,4998 | 3706,268 | 394240 | 3708,270 | 0,0078 |
| 410340 | -1,5398 | 3709,075 | 394241 | 3715,854 | 0,0078 |
| 410341 | 1,3070  | 3719,902 |        |          |        |
| 410342 | 0,2600  | 3726,216 |        |          |        |
| 410343 | 0,2200  | 3729,830 | 394242 | 3732,113 | 0,1275 |
| 410344 | 0,1800  | 3733,148 | 394243 | 3736,414 | 0,1167 |
| 410345 | 0,1400  | 3737,186 | 394244 | 3739,273 | 0,1324 |
| 410346 | 0,1000  | 3740,206 | 394245 | 3744,619 | 0,1589 |
| 410347 | 0,0600  | 3745,639 | 394246 | 3748,160 | 0,2952 |
| 410348 | 0,0200  | 3749,084 | 394247 | 3752,653 | 0,4610 |
| 410349 | -0,0200 | 3753,566 | 394248 | 3755,890 | 0,6395 |
| 410350 | -0,0600 | 3756,858 | 394249 | 3759,506 | 0,8121 |
| 410351 | -0,1000 | 3760,464 | 394250 | 3762,816 | 0,9847 |
| 410352 | -0,1399 | 3763,731 | 394251 | 3766,181 | 1,1504 |
| 410353 | -0,1799 | 3767,075 | 394252 | 3769,457 | 1,3064 |
| 410354 | -0,2199 | 3770,337 | 394253 | 3773,563 | 1,4515 |
| 410355 | -0,2599 | 3774,557 | 394254 | 3777,868 | 1,5849 |
| 410356 | -0,2999 | 3778,756 | 394255 | 3781,206 | 1,7095 |
| 410357 | -0,3399 | 3782,098 | 394256 | 3784,500 | 1,8193 |
| 410358 | -0,3799 | 3785,519 | 394257 | 3788,199 | 1,9203 |
| 410359 | -0,4199 | 3789,207 | 394258 | 3791,874 | 2,0086 |
| 410360 | -0,4599 | 3792,816 | 394259 | 3795,320 | 2,0871 |
| 410361 | -0,4999 | 3796,205 | 394260 | 3800,442 | 2,1528 |
| 410362 | -0,5399 | 3801,292 | 394261 | 3804,131 | 2,2116 |
| 410363 | -0,5799 | 3805,048 | 394262 | 3807,740 | 2,2607 |
| 410364 | -0,6199 | 3808,701 | 394263 | 3811,062 | 2,3028 |
| 410365 | -0,6599 | 3811,946 | 394264 | 3814,545 | 2,3362 |
| 410366 | -0,6999 | 3815,436 | 394265 | 3819,086 | 2,3646 |
| 410367 | -0,7399 | 3819,984 | 394266 | 3822,572 | 2,3872 |
| 410368 | -0,7799 | 3823,553 | 394267 | 3826,209 | 2,4009 |
| 410369 | -0,8199 | 3827,096 | 394268 | 3829,431 | 2,4088 |
| 410370 | -0,8599 | 3830,301 | 394269 | 3832,302 | 2,4127 |

|        |         |          |        |          |        |
|--------|---------|----------|--------|----------|--------|
| 410371 | -0,8998 | 3833,212 | 394270 | 3834,704 | 2,4107 |
| 410372 | -0,9398 | 3835,526 | 394271 | 3838,281 | 2,4048 |
| 410373 | -0,9798 | 3839,099 | 394272 | 3841,615 | 2,3941 |
| 410374 | -1,0198 | 3842,428 | 394273 | 3844,778 | 2,3774 |
| 410375 | -1,0598 | 3845,657 | 394274 | 3847,750 | 2,3568 |
| 410376 | -1,0998 | 3848,555 | 394275 | 3851,436 | 2,3313 |
| 410377 | -1,1398 | 3852,327 | 394276 | 3855,567 | 2,2999 |
| 410378 | -1,1798 | 3856,509 | 394277 | 3858,890 | 2,2636 |
| 410379 | -1,2198 | 3859,677 | 394278 | 3862,051 | 2,2195 |
| 410380 | -1,2598 | 3862,824 | 394279 | 3865,128 | 2,1685 |
| 410381 | -1,2998 | 3865,931 | 394280 | 3869,844 | 2,1185 |
| 410382 | -1,3398 | 3870,708 | 394281 | 3875,009 | 2,0665 |
| 410383 | -1,3798 | 3875,830 | 394282 | 3879,084 | 2,0135 |
| 410384 | -1,4198 | 3879,873 | 394283 | 3883,737 | 0,0078 |
| 410385 | -1,4598 | 3884,531 | 394284 | 3885,830 | 0,0078 |
| 410386 | -1,4998 | 3886,750 | 394285 | 3888,136 | 0,0078 |
| 410387 | -1,5398 | 3889,112 | 394286 | 3890,567 | 0,0078 |
| 410388 | 1,3070  | 3894,843 |        |          |        |
| 410389 | 0,2600  | 3901,564 |        |          |        |
| 410390 | 0,2200  | 3904,924 | 394287 | 3907,048 | 0,1275 |
| 410391 | 0,1800  | 3908,021 | 394288 | 3911,705 | 0,1167 |
| 410392 | 0,1400  | 3912,494 | 394289 | 3915,200 | 0,1295 |
| 410393 | 0,1000  | 3916,302 | 394290 | 3919,008 | 0,1667 |
| 410394 | 0,0600  | 3920,019 | 394291 | 3922,885 | 0,3099 |
| 410395 | 0,0200  | 3923,979 | 394292 | 3926,626 | 0,4767 |
| 410396 | -0,0200 | 3927,567 | 394293 | 3929,895 | 0,6552 |
| 410397 | -0,0600 | 3930,799 | 394294 | 3940,875 | 0,8258 |
| 410398 | -0,1000 | 3941,882 | 394295 | 3944,180 | 1,0014 |
| 410399 | -0,1399 | 3945,128 | 394296 | 3947,427 | 1,1661 |
| 410400 | -0,1799 | 3948,404 | 394297 | 3951,394 | 1,3211 |
| 410401 | -0,2199 | 3952,282 | 394298 | 3955,203 | 1,4663 |
| 410402 | -0,2599 | 3956,107 | 394299 | 3958,681 | 1,5977 |
| 410403 | -0,2999 | 3959,660 | 394300 | 3961,887 | 1,7203 |
| 410404 | -0,3399 | 3962,825 | 394301 | 3966,112 | 1,8282 |
| 410405 | -0,3799 | 3967,062 | 394302 | 3970,664 | 1,9272 |
| 410406 | -0,4199 | 3971,615 | 394303 | 3974,334 | 2,0165 |
| 410407 | -0,4599 | 3975,227 | 394304 | 3978,070 | 2,0939 |
| 410408 | -0,4999 | 3978,978 | 394305 | 3982,006 | 2,1597 |
| 410409 | -0,5399 | 3982,922 | 394306 | 3985,177 | 2,2165 |
| 410410 | -0,5799 | 3986,184 | 394307 | 3990,391 | 2,2646 |
| 410411 | -0,6199 | 3991,322 | 394308 | 3994,648 | 2,3058 |
| 410412 | -0,6599 | 3995,471 | 394309 | 3998,179 | 2,3391 |
| 410413 | -0,6999 | 3999,039 | 394310 | 4001,730 | 2,3656 |
| 410414 | -0,7399 | 4002,659 | 394311 | 4007,703 | 2,3872 |
| 410415 | -0,7799 | 4008,719 | 394312 | 4011,748 | 2,4019 |
| 410416 | -0,8199 | 4012,720 | 394313 | 4015,109 | 2,4107 |
| 410417 | -0,8599 | 4016,077 | 394314 | 4019,012 | 2,4137 |
| 410418 | -0,8998 | 4019,944 | 394315 | 4021,374 | 2,4117 |
| 410419 | -0,9398 | 4022,178 | 394316 | 4026,085 | 2,4048 |
| 410420 | -0,9798 | 4027,034 | 394317 | 4029,451 | 2,3941 |
| 410421 | -1,0198 | 4030,230 | 394318 | 4033,018 | 2,3774 |
| 410422 | -1,0598 | 4033,874 | 394319 | 4036,801 | 2,3568 |
| 410423 | -1,0998 | 4037,577 | 394320 | 4040,861 | 2,3303 |
| 410424 | -1,1398 | 4041,620 | 394321 | 4044,940 | 2,2989 |
| 410425 | -1,1798 | 4045,818 | 394322 | 4048,217 | 2,2626 |
| 410426 | -1,2198 | 4048,988 | 394323 | 4051,348 | 2,2185 |
| 410427 | -1,2598 | 4052,156 | 394324 | 4055,996 | 2,1675 |
| 410428 | -1,2998 | 4056,809 | 394325 | 4060,146 | 0,0078 |
| 410429 | -1,3398 | 4060,940 | 394326 | 4062,686 | 0,0069 |
| 410430 | -1,3798 | 4063,574 | 394327 | 4065,489 | 0,0078 |

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| 410431 | -1,4198 | 4066,286 | 394328 | 4067,747 | 0,0078 |
| 410432 | -1,4598 | 4068,518 | 394329 | 4070,019 | 0,0078 |
| 410433 | -1,4998 | 4070,811 | 394330 | 4073,088 | 0,0078 |
| 410434 | -1,5398 | 4073,948 | 394331 | 4076,015 | 0,0069 |
| 410435 | -1,5798 | 4076,787 | 394332 | 4078,110 | 0,0078 |
| 410436 | -1,6198 | 4078,952 | 394333 | 4080,555 | 0,0069 |
| 410437 | -1,6597 | 4081,377 | 394334 | 4082,746 | 0,0078 |
| 410438 | -1,6997 | 4083,603 | 394335 | 4084,960 | 0,0078 |
| 410439 | -1,7397 | 4085,870 | 394336 | 4087,586 | 0,0069 |
| 410440 | -1,7797 | 4088,491 | 394337 | 4090,197 | 0,0078 |
| 410441 | -1,8197 | 4090,989 | 394338 | 4093,180 | 0,0069 |
| 410442 | -1,8597 | 4094,016 | 394339 | 4095,688 | 0,0078 |
| 410443 | -1,8997 | 4096,494 | 394340 | 4098,012 | 0,0078 |
| 410444 | -1,9397 | 4098,834 | 394341 | 4100,313 | 0,0088 |
| 410445 | -1,9797 | 4101,239 | 394342 | 4103,256 | 0,0078 |
| 410446 | -2,0197 | 4104,069 | 394343 | 4105,475 | 0,0088 |
| 410447 | -2,0597 | 4106,362 | 394344 | 4107,749 | 0,0078 |
| 410448 | -2,0997 | 4108,554 | 394345 | 4110,580 | 0,0078 |
| 410449 | -2,1397 | 4111,325 | 394346 | 4114,045 | 0,0088 |
| 410450 | 1,3070  | 4118,866 |        |          |        |
| 410451 | -2,0672 | 4122,456 |        |          |        |
| 410452 | 0,2598  | 4127,725 |        |          |        |