**Индивидуальные задания по дисциплине ММПД и ПЭ**

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**1. Постановка задачи одномерного анализа данных.** Некоторый результативный признак  при работе с базой данных зависит от фактора . Требуется провести регрессионный, дисперсионный анализ данных. Данные приведены в таблице (вариант по списку). ЛР1

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**2. Постановка задачи многомерного анализа данных и планирования экспериментов**. Результативный признак (время выполнения запроса) при работе с базой данных зависит от трех комплексных факторов . Фактор определяет размер, количество файлов, которые нужно соединить для выполнения запроса; фактор определяет структуру меню базы (число его уровней, их состав и расположения по иерархии); фактор определяется характеристиками оператора-пользователя. На основе статистических измерений получена таблица зависимости значений результативного признака  от значений факторов 

Требуется разработать математическую модель, позволяющую оценивать эффективность работы информационной системы (базы данных), влияние различных факторов на время выполнения запроса. ЛР1-12.

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|  |  |  | ВАРИАНТ 1 | |  |  |  |  |  |  |
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| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 65,84066 |  | 2,832436 | 10,49731 | 1,3 |  | 1 | 2,1 | 0,52864 |  |
| 2 | 185,7157 |  | 5,129699 | 17,3891 | 1,6 |  | 2 | 2,6 | 0,588103 |  |
| 3 | 71,50445 |  | 2,623926 | 9,871777 | 1,9 |  | 3 | 3,1 | 0,617057 |  |
| 4 | 120,7474 |  | 3,533929 | 12,60179 | 2,2 |  | 4 | 3,6 | 0,622378 |  |
| 5 | 211,7913 |  | 4,813757 | 16,44127 | 2,5 |  | 5 | 4,1 | 0,664318 |  |
| 6 | 133,7445 |  | 3,43344 | 12,30032 | 2,8 |  | 6 | 4,6 | 0,677658 |  |
| 7 | 112,649 |  | 2,920007 | 10,76002 | 3,1 |  | 7 | 5,1 | 0,680707 |  |
| 8 | 246,6039 |  | 4,697242 | 16,09173 | 3,4 |  | 8 | 5,6 | 0,69793 |  |
| 9 | 164,7671 |  | 3,486706 | 12,46012 | 3,7 |  | 9 | 6,1 | 0,712748 |  |
| 10 | 243,0604 |  | 4,340122 | 15,02037 | 4 |  | 10 | 6,6 | 0,712425 |  |
| 11 | 110,3291 |  | 2,433495 | 9,300484 | 4,3 |  | 11 | 7,1 | 0,733989 |  |
| 12 | 130,1372 |  | 2,647871 | 9,943613 | 4,6 |  | 12 | 7,6 | 0,723841 |  |
| 13 | 379,961 |  | 5,248231 | 17,74469 | 4,9 |  | 13 | 8,1 | 0,750488 |  |
| 14 | 381,7977 |  | 5,122432 | 17,36729 | 5,2 |  | 14 | 8,6 | 0,728158 |  |
| 15 | 158,1043 |  | 2,760042 | 10,28013 | 5,5 |  | 15 | 9,1 | 0,753868 |  |
| 16 | 181,1075 |  | 2,953136 | 10,85941 | 5,8 |  | 16 | 9,6 | 0,747607 |  |
| 17 | 255,9634 |  | 3,651626 | 12,95488 | 6,1 |  | 17 | 10,1 | 0,732803 |  |
| 18 | 347,5357 |  | 4,360348 | 15,08104 | 6,4 |  | 18 | 10,6 | 0,767183 |  |
| 19 | 199,1416 |  | 2,909496 | 10,72849 | 6,7 |  | 19 | 11,1 | 0,7757 |  |
| 20 | 198,9807 |  | 2,833479 | 10,50044 | 7 |  | 20 | 11,6 | 0,762832 |  |
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|  |  |  | ВАРИАНТ 2 | |  |  |  |  |  |  |
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| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 190,2923 |  | 4,087037 | 3,2 | 14,26111 |  | 1 | 2,1 | 0,116995 |  |
| 2 | 136,0424 |  | 3,185854 | 3,4 | 11,55756 |  | 2 | 2,6 | 0,114852 |  |
| 3 | 192,7283 |  | 3,916015 | 3,6 | 13,74804 |  | 3 | 3,1 | 0,128703 |  |
| 4 | 95,17257 |  | 2,332336 | 3,8 | 8,997009 |  | 4 | 3,6 | 0,15069 |  |
| 5 | 178,7304 |  | 3,549214 | 4 | 12,64764 |  | 5 | 4,1 | 0,147836 |  |
| 6 | 166,6561 |  | 3,305893 | 4,2 | 11,91768 |  | 6 | 4,6 | 0,150834 |  |
| 7 | 237,7762 |  | 4,096029 | 4,4 | 14,28809 |  | 7 | 5,1 | 0,159294 |  |
| 8 | 272,1847 |  | 4,377675 | 4,6 | 15,13303 |  | 8 | 5,6 | 0,160447 |  |
| 9 | 146,776 |  | 2,822033 | 4,8 | 10,4661 |  | 9 | 6,1 | 0,154015 |  |
| 10 | 138,5255 |  | 2,64564 | 5 | 9,93692 |  | 10 | 6,6 | 0,158552 |  |
| 11 | 221,5051 |  | 3,600468 | 5,2 | 12,8014 |  | 11 | 7,1 | 0,156763 |  |
| 12 | 379,3686 |  | 5,012689 | 5,4 | 17,03807 |  | 12 | 7,6 | 0,157474 |  |
| 13 | 140,9828 |  | 2,510296 | 5,6 | 9,530887 |  | 13 | 8,1 | 0,166781 |  |
| 14 | 148,3268 |  | 2,553498 | 5,8 | 9,660493 |  | 14 | 8,6 | 0,156406 |  |
| 15 | 293,5356 |  | 4,03579 | 6 | 14,10737 |  | 15 | 9,1 | 0,155571 |  |
| 16 | 194,6095 |  | 2,993101 | 6,2 | 10,9793 |  | 16 | 9,6 | 0,171333 |  |
| 17 | 420,3935 |  | 4,925937 | 6,4 | 16,77781 |  | 17 | 10,1 | 0,156114 |  |
| 18 | 359,4676 |  | 4,387125 | 6,6 | 15,16138 |  | 18 | 10,6 | 0,166142 |  |
| 19 | 311,2473 |  | 3,928922 | 6,8 | 13,78677 |  | 19 | 11,1 | 0,173272 |  |
| 20 | 468,4329 |  | 5,043881 | 7 | 17,13164 |  | 20 | 11,6 | 0,177838 |  |
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|  |  |  | ВАРИАНТ 3 | |  |  |  |  |  |  |
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| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 434,6341 |  | 5,069738 | 17,20921 | 6,3 |  | 1 | 2,1 | 0,726581 |  |
| 2 | 210,6118 |  | 3,054793 | 11,16438 | 6,6 |  | 2 | 2,6 | 0,733898 |  |
| 3 | 270,1825 |  | 3,543167 | 12,6295 | 6,9 |  | 3 | 3,1 | 0,743836 |  |
| 4 | 386,3546 |  | 4,394354 | 15,18306 | 7,2 |  | 4 | 3,6 | 0,777248 |  |
| 5 | 401,2867 |  | 4,408271 | 15,22481 | 7,5 |  | 5 | 4,1 | 0,777144 |  |
| 6 | 460,5734 |  | 4,720255 | 16,16077 | 7,8 |  | 6 | 4,6 | 0,765977 |  |
| 7 | 285,7687 |  | 3,362828 | 12,08849 | 8,1 |  | 7 | 5,1 | 0,802408 |  |
| 8 | 388,0151 |  | 4,055411 | 14,16623 | 8,4 |  | 8 | 5,6 | 0,781309 |  |
| 9 | 306,3645 |  | 3,385338 | 12,15601 | 8,7 |  | 9 | 6,1 | 0,789043 |  |
| 10 | 222,9842 |  | 2,637452 | 9,912355 | 9 |  | 10 | 6,6 | 0,7889 |  |
| 11 | 564,3959 |  | 4,89771 | 16,69313 | 9,3 |  | 11 | 7,1 | 0,781427 |  |
| 12 | 324,6775 |  | 3,325092 | 11,97528 | 9,6 |  | 12 | 7,6 | 0,811763 |  |
| 13 | 479,6722 |  | 4,257941 | 14,77382 | 9,9 |  | 13 | 8,1 | 0,81756 |  |
| 14 | 497,2286 |  | 4,287365 | 14,86209 | 10,2 |  | 14 | 8,6 | 0,814352 |  |
| 15 | 365,9121 |  | 3,424825 | 12,27447 | 10,5 |  | 15 | 9,1 | 0,786836 |  |
| 16 | 291,0928 |  | 2,857852 | 10,57356 | 10,8 |  | 16 | 9,6 | 0,826551 |  |
| 17 | 359,7771 |  | 3,271434 | 11,8143 | 11,1 |  | 17 | 10,1 | 0,799484 |  |
| 18 | 394,4567 |  | 3,433025 | 12,29907 | 11,4 |  | 18 | 10,6 | 0,816379 |  |
| 19 | 553,455 |  | 4,25498 | 14,76494 | 11,7 |  | 19 | 11,1 | 0,831213 |  |
| 20 | 587,3138 |  | 4,361031 | 15,08309 | 12 |  | 20 | 11,6 | 0,813068 |  |
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|  |  |  | ВАРИАНТ 4 | |  |  |  |  |  |  |
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| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 253,9443 |  | 6,3 | 12,70934 | 3,569781 |  | 1 | 2,1 | 3,424958 |  |
| 2 | 184,0246 |  | 6,6 | 10,31667 | 2,772224 |  | 2 | 2,6 | 3,520825 |  |
| 3 | 316,2598 |  | 6,9 | 13,82013 | 3,940042 |  | 3 | 3,1 | 3,559822 |  |
| 4 | 406,2308 |  | 7,2 | 15,61859 | 4,539531 |  | 4 | 3,6 | 3,587972 |  |
| 5 | 261,9561 |  | 7,5 | 11,92726 | 3,309088 |  | 5 | 4,1 | 3,507311 |  |
| 6 | 173,191 |  | 7,8 | 9,165275 | 2,388425 |  | 6 | 4,6 | 3,668309 |  |
| 7 | 247,1813 |  | 8,1 | 11,10746 | 3,035819 |  | 7 | 5,1 | 3,594801 |  |
| 8 | 427,3315 |  | 8,4 | 14,96633 | 4,322111 |  | 8 | 5,6 | 3,60777 |  |
| 9 | 474,9267 |  | 8,7 | 15,62855 | 4,542849 |  | 9 | 6,1 | 3,802142 |  |
| 10 | 577,4835 |  | 9 | 17,17226 | 5,05742 |  | 10 | 6,6 | 3,684379 |  |
| 11 | 606,3426 |  | 9,3 | 17,37902 | 5,12634 |  | 11 | 7,1 | 3,660088 |  |
| 12 | 497,2749 |  | 9,6 | 15,30635 | 4,43545 |  | 12 | 7,6 | 3,697789 |  |
| 13 | 643,1781 |  | 9,9 | 17,44064 | 5,146881 |  | 13 | 8,1 | 3,774327 |  |
| 14 | 497,6066 |  | 10,2 | 14,86854 | 4,289513 |  | 14 | 8,6 | 3,860297 |  |
| 15 | 633,4575 |  | 10,5 | 16,81175 | 4,937249 |  | 15 | 9,1 | 3,817667 |  |
| 16 | 223,1889 |  | 10,8 | 9,013799 | 2,337933 |  | 16 | 9,6 | 3,870709 |  |
| 17 | 240,5703 |  | 11,1 | 9,295638 | 2,431879 |  | 17 | 10,1 | 3,933863 |  |
| 18 | 283,6508 |  | 11,4 | 10,12 | 2,706667 |  | 18 | 10,6 | 3,786773 |  |
| 19 | 640,6622 |  | 11,7 | 16,04944 | 4,683147 |  | 19 | 11,1 | 3,7562 |  |
| 20 | 549,6625 |  | 12 | 14,52143 | 4,17381 |  | 20 | 11,6 | 3,834826 |  |
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|  |  |  | ВАРИАНТ 5 | |  |  |  |  |  |  |
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| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 290,6404 |  | 5,140373 | 3,5 | 17,42112 |  | 1 | 2,1 | 1,507855 |  |
| 2 | 248,9433 |  | 4,406953 | 4 | 15,22086 |  | 2 | 2,6 | 1,7962 |  |
| 3 | 220,5907 |  | 3,85819 | 4,5 | 13,57457 |  | 3 | 3,1 | 2,255536 |  |
| 4 | 310,9724 |  | 4,583974 | 5 | 15,75192 |  | 4 | 3,6 | 2,596773 |  |
| 5 | 340,5935 |  | 4,641316 | 5,5 | 15,92395 |  | 5 | 4,1 | 2,785457 |  |
| 6 | 160,0054 |  | 2,647269 | 6 | 9,941806 |  | 6 | 4,6 | 3,188439 |  |
| 7 | 200,0923 |  | 2,971359 | 6,5 | 10,91408 |  | 7 | 5,1 | 3,633092 |  |
| 8 | 287,7228 |  | 3,66888 | 7 | 13,00664 |  | 8 | 5,6 | 3,820543 |  |
| 9 | 205,5534 |  | 2,783227 | 7,5 | 10,34968 |  | 9 | 6,1 | 4,23517 |  |
| 10 | 265,0427 |  | 3,213492 | 8 | 11,64048 |  | 10 | 6,6 | 4,497992 |  |
| 11 | 247,2986 |  | 2,949467 | 8,5 | 10,8484 |  | 11 | 7,1 | 4,407273 |  |
| 12 | 574,6786 |  | 5,041808 | 9 | 17,12543 |  | 12 | 7,6 | 4,992878 |  |
| 13 | 411,6186 |  | 3,936596 | 9,5 | 13,80979 |  | 13 | 8,1 | 5,267184 |  |
| 14 | 424,346 |  | 3,901462 | 10 | 13,70439 |  | 14 | 8,6 | 6,186542 |  |
| 15 | 326,3249 |  | 3,159431 | 10,5 | 11,47829 |  | 15 | 9,1 | 6,20579 |  |
| 16 | 268,8811 |  | 2,662571 | 11 | 9,987712 |  | 16 | 9,6 | 6,089608 |  |
| 17 | 247,1087 |  | 2,423337 | 11,5 | 9,270011 |  | 17 | 10,1 | 7,117538 |  |
| 18 | 569,2794 |  | 4,272112 | 12 | 14,81633 |  | 18 | 10,6 | 6,871324 |  |
| 19 | 317,8656 |  | 2,772091 | 12,5 | 10,31627 |  | 19 | 11,1 | 6,268812 |  |
| 20 | 423,5876 |  | 3,326804 | 13 | 11,98041 |  | 20 | 11,6 | 6,47417 |  |
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|  |  |  | ВАРИАНТ 6 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 159,1369 |  | 3,165088 | 11,49526 | 4,3 |  | 1 | 2,1 | 1,003815 |  |
| 2 | 240,8386 |  | 4,044259 | 14,13278 | 4,6 |  | 2 | 2,6 | 1,059553 |  |
| 3 | 124,434 |  | 2,472193 | 9,416578 | 4,9 |  | 3 | 3,1 | 1,064811 |  |
| 4 | 146,9 |  | 2,701024 | 10,10307 | 5,2 |  | 4 | 3,6 | 1,087909 |  |
| 5 | 352,4211 |  | 4,743241 | 16,22972 | 5,5 |  | 5 | 4,1 | 1,131303 |  |
| 6 | 407,3731 |  | 5,066642 | 17,19993 | 5,8 |  | 6 | 4,6 | 1,128198 |  |
| 7 | 203,5665 |  | 3,118472 | 11,35542 | 6,1 |  | 7 | 5,1 | 1,13607 |  |
| 8 | 258,4622 |  | 3,582184 | 12,74655 | 6,4 |  | 8 | 5,6 | 1,152049 |  |
| 9 | 304,9768 |  | 3,906795 | 13,72039 | 6,7 |  | 9 | 6,1 | 1,154747 |  |
| 10 | 260,4292 |  | 3,427337 | 12,28201 | 7 |  | 10 | 6,6 | 1,183279 |  |
| 11 | 365,7794 |  | 4,209205 | 14,62761 | 7,3 |  | 11 | 7,1 | 1,152769 |  |
| 12 | 296,1914 |  | 3,57482 | 12,72446 | 7,6 |  | 12 | 7,6 | 1,203105 |  |
| 13 | 297,7991 |  | 3,510254 | 12,53076 | 7,9 |  | 13 | 8,1 | 1,162735 |  |
| 14 | 255,6708 |  | 3,08709 | 11,26127 | 8,2 |  | 14 | 8,6 | 1,196949 |  |
| 15 | 196,0964 |  | 2,483866 | 9,451597 | 8,5 |  | 15 | 9,1 | 1,194617 |  |
| 16 | 607,4604 |  | 5,283803 | 17,85141 | 8,8 |  | 16 | 9,6 | 1,194015 |  |
| 17 | 275,7063 |  | 3,059066 | 11,1772 | 9,1 |  | 17 | 10,1 | 1,152636 |  |
| 18 | 252,4902 |  | 2,812802 | 10,43841 | 9,4 |  | 18 | 10,6 | 1,184144 |  |
| 19 | 440,8269 |  | 4,07274 | 14,21822 | 9,7 |  | 19 | 11,1 | 1,183178 |  |
| 20 | 370,8689 |  | 3,559345 | 12,67803 | 10 |  | 20 | 11,6 | 1,231578 |  |
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|  |  |  | ВАРИАНТ 7 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 536,4054 |  | 10,3 | 15,44445 | 4,481482 |  | 1 | 2,1 | 1,053849 |  |
| 2 | 279,1217 |  | 10,6 | 10,41354 | 2,804512 |  | 2 | 2,6 | 1,154583 |  |
| 3 | 448,7134 |  | 10,9 | 13,55927 | 3,853088 |  | 3 | 3,1 | 1,206407 |  |
| 4 | 373,6083 |  | 11,2 | 12,02304 | 3,341014 |  | 4 | 3,6 | 1,26246 |  |
| 5 | 456,3681 |  | 11,5 | 13,32807 | 3,776022 |  | 5 | 4,1 | 1,281453 |  |
| 6 | 772,2287 |  | 11,8 | 17,76075 | 5,253582 |  | 6 | 4,6 | 1,310534 |  |
| 7 | 594,7516 |  | 12,1 | 15,12906 | 4,376352 |  | 7 | 5,1 | 1,358506 |  |
| 8 | 401,2646 |  | 12,4 | 11,89511 | 3,298371 |  | 8 | 5,6 | 1,371677 |  |
| 9 | 421,5221 |  | 12,7 | 12,09264 | 3,364214 |  | 9 | 6,1 | 1,398443 |  |
| 10 | 485,196 |  | 13 | 12,97091 | 3,65697 |  | 10 | 6,6 | 1,415829 |  |
| 11 | 727,6766 |  | 13,3 | 16,18681 | 4,728936 |  | 11 | 7,1 | 1,424589 |  |
| 12 | 446,2225 |  | 13,6 | 12,06364 | 3,354546 |  | 12 | 7,6 | 1,432589 |  |
| 13 | 716,7801 |  | 13,9 | 15,69492 | 4,564974 |  | 13 | 8,1 | 1,43424 |  |
| 14 | 676,0234 |  | 14,2 | 15,01372 | 4,337907 |  | 14 | 8,6 | 1,460829 |  |
| 15 | 491,2113 |  | 14,5 | 12,33995 | 3,446648 |  | 15 | 9,1 | 1,473644 |  |
| 16 | 944,1567 |  | 14,8 | 17,77826 | 5,259421 |  | 16 | 9,6 | 1,476424 |  |
| 17 | 806,4507 |  | 15,1 | 16,09366 | 4,697888 |  | 17 | 10,1 | 1,49286 |  |
| 18 | 302,4606 |  | 15,4 | 8,929887 | 2,309962 |  | 18 | 10,6 | 1,488222 |  |
| 19 | 607,0311 |  | 15,7 | 13,39185 | 3,797285 |  | 19 | 11,1 | 1,51151 |  |
| 20 | 815,2442 |  | 16 | 15,71959 | 4,573196 |  | 20 | 11,6 | 1,527908 |  |
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|  |  |  | ВАРИАНТ 8 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 84,82287 |  | 3,34676 | 12,04028 | 1,3 |  | 1 | 2,1 | 3,203926 |  |
| 2 | 62,298 |  | 2,542795 | 9,628384 | 1,6 |  | 2 | 2,6 | 3,472523 |  |
| 3 | 199,6938 |  | 5,092339 | 17,27702 | 1,9 |  | 3 | 3,1 | 3,623743 |  |
| 4 | 182,3968 |  | 4,592257 | 15,77677 | 2,2 |  | 4 | 3,6 | 3,771007 |  |
| 5 | 86,15247 |  | 2,667451 | 10,00235 | 2,5 |  | 5 | 4,1 | 3,868376 |  |
| 6 | 167,7424 |  | 3,98145 | 13,94435 | 2,8 |  | 6 | 4,6 | 3,910656 |  |
| 7 | 149,3371 |  | 3,536628 | 12,60988 | 3,1 |  | 7 | 5,1 | 4,039511 |  |
| 8 | 213,5125 |  | 4,288499 | 14,8655 | 3,4 |  | 8 | 5,6 | 4,106337 |  |
| 9 | 236,0051 |  | 4,408189 | 15,22457 | 3,7 |  | 9 | 6,1 | 4,099595 |  |
| 10 | 254,4712 |  | 4,469041 | 15,40712 | 4 |  | 10 | 6,6 | 4,174168 |  |
| 11 | 123,9682 |  | 2,651635 | 9,954905 | 4,3 |  | 11 | 7,1 | 4,279104 |  |
| 12 | 261,6983 |  | 4,268356 | 14,80507 | 4,6 |  | 12 | 7,6 | 4,297864 |  |
| 13 | 383,5696 |  | 5,279081 | 17,83724 | 4,9 |  | 13 | 8,1 | 4,361467 |  |
| 14 | 390,5003 |  | 5,194922 | 17,58477 | 5,2 |  | 14 | 8,6 | 4,355168 |  |
| 15 | 409,6113 |  | 5,213797 | 17,64139 | 5,5 |  | 15 | 9,1 | 4,437243 |  |
| 16 | 388,1733 |  | 4,914981 | 16,74494 | 5,8 |  | 16 | 9,6 | 4,380568 |  |
| 17 | 243,5052 |  | 3,530113 | 12,59034 | 6,1 |  | 17 | 10,1 | 4,471352 |  |
| 18 | 344,6772 |  | 4,337019 | 15,01106 | 6,4 |  | 18 | 10,6 | 4,471506 |  |
| 19 | 169,5332 |  | 2,586051 | 9,758153 | 6,7 |  | 19 | 11,1 | 4,445063 |  |
| 20 | 174,5385 |  | 2,572708 | 9,718123 | 7 |  | 20 | 11,6 | 4,487798 |  |
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|  |  |  | ВАРИАНТ 9 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 237,4187 |  | 4,701969 | 3,2 | 16,10591 |  | 1 | 2,1 | 2,685995 |  |
| 2 | 185,9607 |  | 3,923483 | 3,4 | 13,77045 |  | 2 | 2,6 | 2,850255 |  |
| 3 | 97,76899 |  | 2,449605 | 3,6 | 9,348816 |  | 3 | 3,1 | 3,005657 |  |
| 4 | 93,90695 |  | 2,308928 | 3,8 | 8,926785 |  | 4 | 3,6 | 3,148022 |  |
| 5 | 233,353 |  | 4,228069 | 4 | 14,68421 |  | 5 | 4,1 | 3,217167 |  |
| 6 | 103,4178 |  | 2,348971 | 4,2 | 9,046914 |  | 6 | 4,6 | 3,338283 |  |
| 7 | 239,6048 |  | 4,116474 | 4,4 | 14,34942 |  | 7 | 5,1 | 3,396614 |  |
| 8 | 299,5448 |  | 4,653468 | 4,6 | 15,9604 |  | 8 | 5,6 | 3,411409 |  |
| 9 | 152,1772 |  | 2,895851 | 4,8 | 10,68755 |  | 9 | 6,1 | 3,49561 |  |
| 10 | 240,3663 |  | 3,878343 | 5 | 13,63503 |  | 10 | 6,6 | 3,474178 |  |
| 11 | 136,5998 |  | 2,560574 | 5,2 | 9,681721 |  | 11 | 7,1 | 3,573809 |  |
| 12 | 234,4598 |  | 3,668978 | 5,4 | 13,00693 |  | 12 | 7,6 | 3,60148 |  |
| 13 | 267,8538 |  | 3,935588 | 5,6 | 13,80677 |  | 13 | 8,1 | 3,668423 |  |
| 14 | 168,0897 |  | 2,799027 | 5,8 | 10,39708 |  | 14 | 8,6 | 3,659197 |  |
| 15 | 184,0302 |  | 2,930276 | 6 | 10,79083 |  | 15 | 9,1 | 3,610029 |  |
| 16 | 355,8782 |  | 4,499659 | 6,2 | 15,49898 |  | 16 | 9,6 | 3,65247 |  |
| 17 | 418,3373 |  | 4,910672 | 6,4 | 16,73202 |  | 17 | 10,1 | 3,721562 |  |
| 18 | 338,3297 |  | 4,217233 | 6,6 | 14,6517 |  | 18 | 10,6 | 3,721189 |  |
| 19 | 188,9733 |  | 2,776634 | 6,8 | 10,3299 |  | 19 | 11,1 | 3,754661 |  |
| 20 | 241,4093 |  | 3,251617 | 7 | 11,75485 |  | 20 | 11,6 | 3,770385 |  |
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|  |  |  | ВАРИАНТ 10 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 422,6404 |  | 4,981137 | 16,94341 | 6,3 |  | 1 | 2,1 | 3,705637 |  |
| 2 | 239,3045 |  | 3,34086 | 12,02258 | 6,6 |  | 2 | 2,6 | 4,023889 |  |
| 3 | 296,9439 |  | 3,777371 | 13,33211 | 6,9 |  | 3 | 3,1 | 4,191807 |  |
| 4 | 299,281 |  | 3,710115 | 13,13034 | 7,2 |  | 4 | 3,6 | 4,307832 |  |
| 5 | 178,5011 |  | 2,506114 | 9,518343 | 7,5 |  | 5 | 4,1 | 4,505519 |  |
| 6 | 340,1823 |  | 3,86975 | 13,60925 | 7,8 |  | 6 | 4,6 | 4,568261 |  |
| 7 | 417,2717 |  | 4,339901 | 15,0197 | 8,1 |  | 7 | 5,1 | 4,729768 |  |
| 8 | 378,0167 |  | 3,985499 | 13,9565 | 8,4 |  | 8 | 5,6 | 4,790731 |  |
| 9 | 533,8275 |  | 4,897775 | 16,69332 | 8,7 |  | 9 | 6,1 | 4,850259 |  |
| 10 | 397,1014 |  | 3,962722 | 13,88817 | 9 |  | 10 | 6,6 | 4,924089 |  |
| 11 | 384,5511 |  | 3,806277 | 13,41883 | 9,3 |  | 11 | 7,1 | 4,901036 |  |
| 12 | 650,368 |  | 5,26898 | 17,80694 | 9,6 |  | 12 | 7,6 | 5,032594 |  |
| 13 | 299,7036 |  | 3,08344 | 11,25032 | 9,9 |  | 13 | 8,1 | 5,043162 |  |
| 14 | 218,4581 |  | 2,390931 | 9,172792 | 10,2 |  | 14 | 8,6 | 5,014815 |  |
| 15 | 241,4848 |  | 2,532091 | 9,596272 | 10,5 |  | 15 | 9,1 | 5,070928 |  |
| 16 | 671,3546 |  | 5,045549 | 17,13665 | 10,8 |  | 16 | 9,6 | 5,063182 |  |
| 17 | 320,6172 |  | 3,012903 | 11,03871 | 11,1 |  | 17 | 10,1 | 5,157134 |  |
| 18 | 361,0815 |  | 3,225999 | 11,678 | 11,4 |  | 18 | 10,6 | 5,248071 |  |
| 19 | 382,0561 |  | 3,303658 | 11,91097 | 11,7 |  | 19 | 11,1 | 5,268492 |  |
| 20 | 361,4027 |  | 3,125656 | 11,37697 | 12 |  | 20 | 11,6 | 5,194758 |  |
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|  |  |  | ВАРИАНТ 11 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 287,8705 |  | 6,3 | 13,65224 | 3,884079 |  | 1 | 2,1 | 4,76304 |  |
| 2 | 148,8571 |  | 6,6 | 9,097965 | 2,365988 |  | 2 | 2,6 | 5,086971 |  |
| 3 | 316,1501 |  | 6,9 | 13,8174 | 3,939132 |  | 3 | 3,1 | 5,450934 |  |
| 4 | 176,8004 |  | 7,2 | 9,657973 | 2,552658 |  | 4 | 3,6 | 5,669 |  |
| 5 | 433,4694 |  | 7,5 | 15,9016 | 4,633868 |  | 5 | 4,1 | 5,81099 |  |
| 6 | 223,4564 |  | 7,8 | 10,66428 | 2,888092 |  | 6 | 4,6 | 5,882091 |  |
| 7 | 211,2042 |  | 8,1 | 10,12329 | 2,707765 |  | 7 | 5,1 | 6,119202 |  |
| 8 | 187,9825 |  | 8,4 | 9,270908 | 2,423636 |  | 8 | 5,6 | 6,116597 |  |
| 9 | 234,2709 |  | 8,7 | 10,38518 | 2,795058 |  | 9 | 6,1 | 6,159692 |  |
| 10 | 276,1678 |  | 9 | 11,25033 | 3,083442 |  | 10 | 6,6 | 6,287317 |  |
| 11 | 596,842 |  | 9,3 | 17,22577 | 5,075257 |  | 11 | 7,1 | 6,3903 |  |
| 12 | 560,2793 |  | 9,6 | 16,37578 | 4,791927 |  | 12 | 7,6 | 6,419323 |  |
| 13 | 284,555 |  | 9,9 | 10,91135 | 2,970451 |  | 13 | 8,1 | 6,499395 |  |
| 14 | 471,7227 |  | 10,2 | 14,42148 | 4,140492 |  | 14 | 8,6 | 6,480994 |  |
| 15 | 239,4869 |  | 10,5 | 9,5484 | 2,516133 |  | 15 | 9,1 | 6,631051 |  |
| 16 | 278,3553 |  | 10,8 | 10,29549 | 2,765164 |  | 16 | 9,6 | 6,536522 |  |
| 17 | 249,7464 |  | 11,1 | 9,508305 | 2,502768 |  | 17 | 10,1 | 6,538712 |  |
| 18 | 320,9503 |  | 11,4 | 10,89314 | 2,96438 |  | 18 | 10,6 | 6,589393 |  |
| 19 | 395,5718 |  | 11,7 | 12,15619 | 3,385397 |  | 19 | 11,1 | 6,774506 |  |
| 20 | 336,6714 |  | 12 | 10,90934 | 2,96978 |  | 20 | 11,6 | 6,787618 |  |
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|  |  |  | ВАРИАНТ 12 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 239,4276 |  | 4,555487 | 3,5 | 15,66646 |  | 1 | 2,1 | 5,833798 |  |
| 2 | 157,5278 |  | 3,258366 | 4 | 11,7751 |  | 2 | 2,6 | 6,278213 |  |
| 3 | 219,489 |  | 3,845462 | 4,5 | 13,53639 |  | 3 | 3,1 | 6,543395 |  |
| 4 | 126,9456 |  | 2,480291 | 5 | 9,440874 |  | 4 | 3,6 | 6,860972 |  |
| 5 | 310,1252 |  | 4,370396 | 5,5 | 15,11119 |  | 5 | 4,1 | 7,114475 |  |
| 6 | 291,6522 |  | 4,018692 | 6 | 14,05608 |  | 6 | 4,6 | 7,215102 |  |
| 7 | 413,7688 |  | 4,839111 | 6,5 | 16,51733 |  | 7 | 5,1 | 7,288475 |  |
| 8 | 206,5187 |  | 2,910725 | 7 | 10,73217 |  | 8 | 5,6 | 7,490789 |  |
| 9 | 177,5984 |  | 2,496529 | 7,5 | 9,489588 |  | 9 | 6,1 | 7,663068 |  |
| 10 | 417,8856 |  | 4,373216 | 8 | 15,11965 |  | 10 | 6,6 | 7,665533 |  |
| 11 | 565,7603 |  | 5,144405 | 8,5 | 17,43322 |  | 11 | 7,1 | 7,792906 |  |
| 12 | 268,5664 |  | 3,022417 | 9 | 11,06725 |  | 12 | 7,6 | 7,953568 |  |
| 13 | 295,49 |  | 3,130824 | 9,5 | 11,39247 |  | 13 | 8,1 | 7,88395 |  |
| 14 | 358,1286 |  | 3,474356 | 10 | 12,42307 |  | 14 | 8,6 | 7,93046 |  |
| 15 | 234,1322 |  | 2,473049 | 10,5 | 9,419146 |  | 15 | 9,1 | 8,02962 |  |
| 16 | 630,8694 |  | 4,799615 | 11 | 16,39884 |  | 16 | 9,6 | 8,097632 |  |
| 17 | 591,515 |  | 4,489532 | 11,5 | 15,4686 |  | 17 | 10,1 | 8,033298 |  |
| 18 | 271,2388 |  | 2,528472 | 12 | 9,585416 |  | 18 | 10,6 | 8,108431 |  |
| 19 | 350,906 |  | 2,980937 | 12,5 | 10,94281 |  | 19 | 11,1 | 8,071855 |  |
| 20 | 463,1526 |  | 3,54131 | 13 | 12,62393 |  | 20 | 11,6 | 8,230937 |  |
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|  |  |  | ВАРИАНТ 13 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 118,9594 |  | 2,572958 | 9,718873 | 4,3 |  | 1 | 2,1 | 6,895896 |  |
| 2 | 145,8052 |  | 2,873942 | 10,62183 | 4,6 |  | 2 | 2,6 | 7,432569 |  |
| 3 | 350,366 |  | 4,989536 | 16,96861 | 4,9 |  | 3 | 3,1 | 7,709437 |  |
| 4 | 151,2579 |  | 2,758997 | 10,27699 | 5,2 |  | 4 | 3,6 | 8,003861 |  |
| 5 | 405,2287 |  | 5,178936 | 17,53681 | 5,5 |  | 5 | 4,1 | 8,355475 |  |
| 6 | 404,4966 |  | 5,044149 | 17,13245 | 5,8 |  | 6 | 4,6 | 8,56717 |  |
| 7 | 453,9124 |  | 5,291581 | 17,87474 | 6,1 |  | 7 | 5,1 | 8,598331 |  |
| 8 | 216,9042 |  | 3,173934 | 11,5218 | 6,4 |  | 8 | 5,6 | 8,849918 |  |
| 9 | 309,2953 |  | 3,943536 | 13,83061 | 6,7 |  | 9 | 6,1 | 9,084504 |  |
| 10 | 470,8063 |  | 5,059995 | 17,17998 | 7 |  | 10 | 6,6 | 9,011152 |  |
| 11 | 377,4875 |  | 4,296996 | 14,89099 | 7,3 |  | 11 | 7,1 | 9,279633 |  |
| 12 | 514,6737 |  | 5,134152 | 17,40246 | 7,6 |  | 12 | 7,6 | 9,149118 |  |
| 13 | 332,9173 |  | 3,787079 | 13,36124 | 7,9 |  | 13 | 8,1 | 9,224737 |  |
| 14 | 394,0891 |  | 4,152083 | 14,45625 | 8,2 |  | 14 | 8,6 | 9,33168 |  |
| 15 | 187,9302 |  | 2,404409 | 9,213226 | 8,5 |  | 15 | 9,1 | 9,468864 |  |
| 16 | 305,4436 |  | 3,355586 | 12,06676 | 8,8 |  | 16 | 9,6 | 9,586893 |  |
| 17 | 302,5532 |  | 3,267542 | 11,80263 | 9,1 |  | 17 | 10,1 | 9,708672 |  |
| 18 | 619,5376 |  | 5,167252 | 17,50176 | 9,4 |  | 18 | 10,6 | 9,681937 |  |
| 19 | 210,1977 |  | 2,400823 | 9,202468 | 9,7 |  | 19 | 11,1 | 9,712766 |  |
| 20 | 348,7058 |  | 3,410548 | 12,23164 | 10 |  | 20 | 11,6 | 9,655066 |  |
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|  |  |  | ВАРИАНТ 14 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 540,0533 |  | 10,3 | 15,50405 | 4,50135 |  | 1 | 2,1 | 7,984488 |  |
| 2 | 329,6614 |  | 10,6 | 11,49128 | 3,163761 |  | 2 | 2,6 | 8,456598 |  |
| 3 | 414,9786 |  | 10,9 | 12,95968 | 3,653228 |  | 3 | 3,1 | 9,050786 |  |
| 4 | 293,4351 |  | 11,2 | 10,42394 | 2,807981 |  | 4 | 3,6 | 9,299276 |  |
| 5 | 293,3175 |  | 11,5 | 10,27736 | 2,759119 |  | 5 | 4,1 | 9,533963 |  |
| 6 | 326,8875 |  | 11,8 | 10,81509 | 2,938363 |  | 6 | 4,6 | 9,797361 |  |
| 7 | 712,0198 |  | 12,1 | 16,75873 | 4,919576 |  | 7 | 5,1 | 10,03213 |  |
| 8 | 425,3761 |  | 12,4 | 12,30926 | 3,436421 |  | 8 | 5,6 | 10,21914 |  |
| 9 | 742,3218 |  | 12,7 | 16,75252 | 4,917508 |  | 9 | 6,1 | 10,41914 |  |
| 10 | 540,8259 |  | 13 | 13,81393 | 3,937977 |  | 10 | 6,6 | 10,42196 |  |
| 11 | 439,4601 |  | 13,3 | 12,09673 | 3,365578 |  | 11 | 7,1 | 10,63376 |  |
| 12 | 553,4369 |  | 13,6 | 13,67848 | 3,892827 |  | 12 | 7,6 | 10,74292 |  |
| 13 | 693,1305 |  | 13,9 | 15,39696 | 4,465653 |  | 13 | 8,1 | 10,88583 |  |
| 14 | 854,9913 |  | 14,2 | 17,16272 | 5,054241 |  | 14 | 8,6 | 10,75066 |  |
| 15 | 360,6069 |  | 14,5 | 10,27131 | 2,757103 |  | 15 | 9,1 | 10,96071 |  |
| 16 | 645,0711 |  | 14,8 | 14,30624 | 4,10208 |  | 16 | 9,6 | 10,96665 |  |
| 17 | 704,7143 |  | 15,1 | 14,89833 | 4,299443 |  | 17 | 10,1 | 10,91403 |  |
| 18 | 890,0947 |  | 15,4 | 16,85288 | 4,95096 |  | 18 | 10,6 | 11,0055 |  |
| 19 | 955,7543 |  | 15,7 | 17,37522 | 5,125075 |  | 19 | 11,1 | 11,11089 |  |
| 20 | 781,8733 |  | 16 | 15,34784 | 4,449279 |  | 20 | 11,6 | 11,37789 |  |
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|  |  |  | ВАРИАНТ 15 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 75,58771 |  | 3,104676 | 11,31403 | 1,3 |  | 1 | 2,1 | 0,531862 |  |
| 2 | 161,4143 |  | 4,713497 | 16,14049 | 1,6 |  | 2 | 2,6 | 0,576243 |  |
| 3 | 194,5622 |  | 5,012835 | 17,03851 | 1,9 |  | 3 | 3,1 | 0,599558 |  |
| 4 | 153,0214 |  | 4,114825 | 14,34447 | 2,2 |  | 4 | 3,6 | 0,644578 |  |
| 5 | 155,3648 |  | 3,962798 | 13,8884 | 2,5 |  | 5 | 4,1 | 0,671654 |  |
| 6 | 171,8399 |  | 4,04361 | 14,13083 | 2,8 |  | 6 | 4,6 | 0,664004 |  |
| 7 | 90,42535 |  | 2,496787 | 9,490361 | 3,1 |  | 7 | 5,1 | 0,688303 |  |
| 8 | 197,7645 |  | 4,082938 | 14,24882 | 3,4 |  | 8 | 5,6 | 0,681205 |  |
| 9 | 210,6109 |  | 4,097957 | 14,29387 | 3,7 |  | 9 | 6,1 | 0,701388 |  |
| 10 | 238,2654 |  | 4,285056 | 14,85517 | 4 |  | 10 | 6,6 | 0,720409 |  |
| 11 | 136,593 |  | 2,843301 | 10,5299 | 4,3 |  | 11 | 7,1 | 0,710091 |  |
| 12 | 255,4345 |  | 4,202021 | 14,60606 | 4,6 |  | 12 | 7,6 | 0,733401 |  |
| 13 | 124,8463 |  | 2,478305 | 9,434914 | 4,9 |  | 13 | 8,1 | 0,719242 |  |
| 14 | 187,3246 |  | 3,210517 | 11,63155 | 5,2 |  | 14 | 8,6 | 0,752867 |  |
| 15 | 248,0326 |  | 3,77414 | 13,32242 | 5,5 |  | 15 | 9,1 | 0,761131 |  |
| 16 | 213,6459 |  | 3,316196 | 11,94859 | 5,8 |  | 16 | 9,6 | 0,771613 |  |
| 17 | 303,5127 |  | 4,090636 | 14,27191 | 6,1 |  | 17 | 10,1 | 0,765427 |  |
| 18 | 216,7695 |  | 3,172551 | 11,51765 | 6,4 |  | 18 | 10,6 | 0,758327 |  |
| 19 | 407,6221 |  | 4,720683 | 16,16205 | 6,7 |  | 19 | 11,1 | 0,75136 |  |
| 20 | 404,2933 |  | 4,592032 | 15,7761 | 7 |  | 20 | 11,6 | 0,752927 |  |
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|  |  |  | ВАРИАНТ 16 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 272,8746 |  | 5,125378 | 3,2 | 17,37613 |  | 1 | 2,1 | 0,114435 |  |
| 2 | 165,3635 |  | 3,632717 | 3,4 | 12,89815 |  | 2 | 2,6 | 0,120286 |  |
| 3 | 190,8987 |  | 3,891722 | 3,6 | 13,67517 |  | 3 | 3,1 | 0,125082 |  |
| 4 | 218,5104 |  | 4,147079 | 3,8 | 14,44124 |  | 4 | 3,6 | 0,130207 |  |
| 5 | 230,7947 |  | 4,198156 | 4 | 14,59447 |  | 5 | 4,1 | 0,146596 |  |
| 6 | 260,788 |  | 4,44128 | 4,2 | 15,32384 |  | 6 | 4,6 | 0,134924 |  |
| 7 | 283,1747 |  | 4,582619 | 4,4 | 15,74786 |  | 7 | 5,1 | 0,146796 |  |
| 8 | 241,8903 |  | 4,055782 | 4,6 | 14,16735 |  | 8 | 5,6 | 0,144492 |  |
| 9 | 364,6978 |  | 5,16427 | 4,8 | 17,49281 |  | 9 | 6,1 | 0,157696 |  |
| 10 | 218,1247 |  | 3,635327 | 5 | 12,90598 |  | 10 | 6,6 | 0,164454 |  |
| 11 | 173,4923 |  | 3,042856 | 5,2 | 11,12857 |  | 11 | 7,1 | 0,144222 |  |
| 12 | 204,5505 |  | 3,343957 | 5,4 | 12,03187 |  | 12 | 7,6 | 0,148225 |  |
| 13 | 184,2089 |  | 3,048021 | 5,6 | 11,14406 |  | 13 | 8,1 | 0,156668 |  |
| 14 | 179,7574 |  | 2,93741 | 5,8 | 10,81223 |  | 14 | 8,6 | 0,171332 |  |
| 15 | 409,8051 |  | 5,003115 | 6 | 17,00935 |  | 15 | 9,1 | 0,160652 |  |
| 16 | 243,2154 |  | 3,496421 | 6,2 | 12,48926 |  | 16 | 9,6 | 0,158293 |  |
| 17 | 170,4795 |  | 2,669585 | 6,4 | 10,00876 |  | 17 | 10,1 | 0,156329 |  |
| 18 | 464,7176 |  | 5,167906 | 6,6 | 17,50372 |  | 18 | 10,6 | 0,179046 |  |
| 19 | 295,8508 |  | 3,797901 | 6,8 | 13,3937 |  | 19 | 11,1 | 0,177799 |  |
| 20 | 216,3587 |  | 3,009529 | 7 | 11,02859 |  | 20 | 11,6 | 0,158735 |  |
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|  |  |  | ВАРИАНТ 17 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 147,1052 |  | 2,41371 | 9,241129 | 6,3 |  | 1 | 2,1 | 0,735263 |  |
| 2 | 398,0361 |  | 4,68489 | 16,05467 | 6,6 |  | 2 | 2,6 | 0,739767 |  |
| 3 | 156,2907 |  | 2,388004 | 9,164011 | 6,9 |  | 3 | 3,1 | 0,754367 |  |
| 4 | 269,0654 |  | 3,450232 | 12,3507 | 7,2 |  | 4 | 3,6 | 0,76734 |  |
| 5 | 256,3215 |  | 3,25921 | 11,77763 | 7,5 |  | 5 | 4,1 | 0,777379 |  |
| 6 | 240,3925 |  | 3,043899 | 11,1317 | 7,8 |  | 6 | 4,6 | 0,764499 |  |
| 7 | 312,0272 |  | 3,573172 | 12,71952 | 8,1 |  | 7 | 5,1 | 0,773201 |  |
| 8 | 201,9188 |  | 2,558925 | 9,676774 | 8,4 |  | 8 | 5,6 | 0,806254 |  |
| 9 | 578,9938 |  | 5,157044 | 17,47113 | 8,7 |  | 9 | 6,1 | 0,804431 |  |
| 10 | 387,7097 |  | 3,899606 | 13,69882 | 9 |  | 10 | 6,6 | 0,813122 |  |
| 11 | 259,7979 |  | 2,891463 | 10,67439 | 9,3 |  | 11 | 7,1 | 0,805292 |  |
| 12 | 247,4576 |  | 2,734477 | 10,20343 | 9,6 |  | 12 | 7,6 | 0,79328 |  |
| 13 | 557,0413 |  | 4,694554 | 16,08366 | 9,9 |  | 13 | 8,1 | 0,808261 |  |
| 14 | 237,174 |  | 2,546297 | 9,63889 | 10,2 |  | 14 | 8,6 | 0,794376 |  |
| 15 | 378,5284 |  | 3,506442 | 12,51933 | 10,5 |  | 15 | 9,1 | 0,796511 |  |
| 16 | 331,8915 |  | 3,142278 | 11,42684 | 10,8 |  | 16 | 9,6 | 0,812498 |  |
| 17 | 686,8541 |  | 5,043202 | 17,12961 | 11,1 |  | 17 | 10,1 | 0,81413 |  |
| 18 | 559,6238 |  | 4,350756 | 15,05227 | 11,4 |  | 18 | 10,6 | 0,807179 |  |
| 19 | 473,9011 |  | 3,834539 | 13,50362 | 11,7 |  | 19 | 11,1 | 0,791083 |  |
| 20 | 267,9144 |  | 2,504757 | 9,51427 | 12 |  | 20 | 11,6 | 0,83778 |  |
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|  |  |  | ВАРИАНТ 18 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 315,175 |  | 6,3 | 14,37207 | 4,124022 |  | 1 | 2,1 | 3,456296 |  |
| 2 | 267,8599 |  | 6,6 | 12,82804 | 3,609348 |  | 2 | 2,6 | 3,502715 |  |
| 3 | 463,3862 |  | 6,9 | 17,1375 | 5,045834 |  | 3 | 3,1 | 3,525684 |  |
| 4 | 306,9752 |  | 7,2 | 13,32264 | 3,774213 |  | 4 | 3,6 | 3,475408 |  |
| 5 | 240,6103 |  | 7,5 | 11,35173 | 3,117243 |  | 5 | 4,1 | 3,548352 |  |
| 6 | 389,5176 |  | 7,8 | 14,70123 | 4,233743 |  | 6 | 4,6 | 3,718914 |  |
| 7 | 487,6749 |  | 8,1 | 16,40129 | 4,800429 |  | 7 | 5,1 | 3,621757 |  |
| 8 | 181,3821 |  | 8,4 | 9,073652 | 2,357884 |  | 8 | 5,6 | 3,827192 |  |
| 9 | 217,7459 |  | 8,7 | 9,943416 | 2,647805 |  | 9 | 6,1 | 3,713329 |  |
| 10 | 188,4532 |  | 9 | 8,959426 | 2,319809 |  | 10 | 6,6 | 3,620627 |  |
| 11 | 403,8299 |  | 9,3 | 13,80152 | 3,933841 |  | 11 | 7,1 | 3,722149 |  |
| 12 | 319,9614 |  | 9,6 | 11,87336 | 3,291121 |  | 12 | 7,6 | 3,687981 |  |
| 13 | 328,1936 |  | 9,9 | 11,86606 | 3,288688 |  | 13 | 8,1 | 3,648423 |  |
| 14 | 583,729 |  | 10,2 | 16,27937 | 4,75979 |  | 14 | 8,6 | 3,7599 |  |
| 15 | 484,5938 |  | 10,5 | 14,43815 | 4,14605 |  | 15 | 9,1 | 3,789693 |  |
| 16 | 283,1657 |  | 10,8 | 10,40121 | 2,800403 |  | 16 | 9,6 | 3,764669 |  |
| 17 | 356,091 |  | 11,1 | 11,7431 | 3,247699 |  | 17 | 10,1 | 3,812324 |  |
| 18 | 661,755 |  | 11,4 | 16,5568 | 4,852268 |  | 18 | 10,6 | 3,795191 |  |
| 19 | 374,6123 |  | 11,7 | 11,77412 | 3,258041 |  | 19 | 11,1 | 3,840781 |  |
| 20 | 793,5636 |  | 12 | 17,88756 | 5,295854 |  | 20 | 11,6 | 3,739464 |  |
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|  |  |  | ВАРИАНТ 19 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 96,34849 |  | 2,459285 | 3,5 | 9,377854 |  | 1 | 2,1 | 1,486674 |  |
| 2 | 230,7546 |  | 4,197686 | 4 | 14,59306 |  | 2 | 2,6 | 1,865922 |  |
| 3 | 147,2533 |  | 2,928165 | 4,5 | 10,78449 |  | 3 | 3,1 | 2,214839 |  |
| 4 | 130,7986 |  | 2,536094 | 5 | 9,608281 |  | 4 | 3,6 | 2,484032 |  |
| 5 | 185,9554 |  | 3,098881 | 5,5 | 11,29664 |  | 5 | 4,1 | 2,700543 |  |
| 6 | 369,554 |  | 4,685744 | 6 | 16,05723 |  | 6 | 4,6 | 3,183757 |  |
| 7 | 377,3289 |  | 4,562178 | 6,5 | 15,68653 |  | 7 | 5,1 | 3,426336 |  |
| 8 | 413,9556 |  | 4,662253 | 7 | 15,98676 |  | 8 | 5,6 | 4,015978 |  |
| 9 | 176,1858 |  | 2,481484 | 7,5 | 9,444451 |  | 9 | 6,1 | 3,76845 |  |
| 10 | 473,0424 |  | 4,738475 | 8 | 16,21542 |  | 10 | 6,6 | 4,165963 |  |
| 11 | 263,1355 |  | 3,083804 | 8,5 | 11,25141 |  | 11 | 7,1 | 4,830228 |  |
| 12 | 343,4519 |  | 3,591572 | 9 | 12,77472 |  | 12 | 7,6 | 4,840085 |  |
| 13 | 436,4503 |  | 4,093771 | 9,5 | 14,28131 |  | 13 | 8,1 | 5,322731 |  |
| 14 | 211,8869 |  | 2,366582 | 10 | 9,099746 |  | 14 | 8,6 | 5,833797 |  |
| 15 | 397,9093 |  | 3,629287 | 10,5 | 12,88786 |  | 15 | 9,1 | 5,52554 |  |
| 16 | 375,5954 |  | 3,390684 | 11 | 12,17205 |  | 16 | 9,6 | 6,359579 |  |
| 17 | 265,2075 |  | 2,558162 | 11,5 | 9,674485 |  | 17 | 10,1 | 6,164123 |  |
| 18 | 493,2455 |  | 3,881124 | 12 | 13,64337 |  | 18 | 10,6 | 7,660264 |  |
| 19 | 263,8835 |  | 2,407037 | 12,5 | 9,221111 |  | 19 | 11,1 | 6,658937 |  |
| 20 | 448,6671 |  | 3,463846 | 13 | 12,39154 |  | 20 | 11,6 | 6,676859 |  |
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|  |  |  | ВАРИАНТ 20 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 117,7588 |  | 2,55386 | 9,66158 | 4,3 |  | 1 | 2,1 | 1,005211 |  |
| 2 | 278,0638 |  | 4,438054 | 15,31416 | 4,6 |  | 2 | 2,6 | 1,058988 |  |
| 3 | 236,6124 |  | 3,876732 | 13,6302 | 4,9 |  | 3 | 3,1 | 1,043649 |  |
| 4 | 250,7831 |  | 3,911504 | 13,73451 | 5,2 |  | 4 | 3,6 | 1,083718 |  |
| 5 | 178,546 |  | 3,011307 | 11,03392 | 5,5 |  | 5 | 4,1 | 1,114312 |  |
| 6 | 316,6351 |  | 4,314345 | 14,94304 | 5,8 |  | 6 | 4,6 | 1,124724 |  |
| 7 | 214,6174 |  | 3,23605 | 11,70815 | 6,1 |  | 7 | 5,1 | 1,123249 |  |
| 8 | 172,7829 |  | 2,696078 | 10,08823 | 6,4 |  | 8 | 5,6 | 1,143565 |  |
| 9 | 274,3522 |  | 3,63856 | 12,91568 | 6,7 |  | 9 | 6,1 | 1,161803 |  |
| 10 | 297,8381 |  | 3,75553 | 13,26659 | 7 |  | 10 | 6,6 | 1,186345 |  |
| 11 | 479,0794 |  | 5,008603 | 17,02581 | 7,3 |  | 11 | 7,1 | 1,153252 |  |
| 12 | 210,91 |  | 2,813268 | 10,4398 | 7,6 |  | 12 | 7,6 | 1,165494 |  |
| 13 | 351,8157 |  | 3,930139 | 13,79042 | 7,9 |  | 13 | 8,1 | 1,168567 |  |
| 14 | 200,6556 |  | 2,586345 | 9,759035 | 8,2 |  | 14 | 8,6 | 1,170617 |  |
| 15 | 232,3781 |  | 2,819037 | 10,45711 | 8,5 |  | 15 | 9,1 | 1,193947 |  |
| 16 | 412,968 |  | 4,119058 | 14,35717 | 8,8 |  | 16 | 9,6 | 1,186778 |  |
| 17 | 383,2943 |  | 3,845411 | 13,53623 | 9,1 |  | 17 | 10,1 | 1,163116 |  |
| 18 | 409,699 |  | 3,948011 | 13,84403 | 9,4 |  | 18 | 10,6 | 1,236732 |  |
| 19 | 591,6024 |  | 4,934161 | 16,80248 | 9,7 |  | 19 | 11,1 | 1,214219 |  |
| 20 | 599,419 |  | 4,894298 | 16,68289 | 10 |  | 20 | 11,6 | 1,210788 |  |
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|  |  |  | ВАРИАНТ 21 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 408,7545 |  | 10,3 | 13,21661 | 3,738871 |  | 1 | 2,1 | 1,071655 |  |
| 2 | 327,1491 |  | 10,6 | 11,43968 | 3,146561 |  | 2 | 2,6 | 1,148318 |  |
| 3 | 600,3117 |  | 10,9 | 16,01536 | 4,671786 |  | 3 | 3,1 | 1,186692 |  |
| 4 | 299,4776 |  | 11,2 | 10,55129 | 2,850432 |  | 4 | 3,6 | 1,262857 |  |
| 5 | 271,6888 |  | 11,5 | 9,816104 | 2,605368 |  | 5 | 4,1 | 1,310766 |  |
| 6 | 634,9679 |  | 11,8 | 15,90124 | 4,633745 |  | 6 | 4,6 | 1,324793 |  |
| 7 | 721,6333 |  | 12,1 | 16,88626 | 4,962088 |  | 7 | 5,1 | 1,344395 |  |
| 8 | 345,5355 |  | 12,4 | 10,88914 | 2,963045 |  | 8 | 5,6 | 1,389131 |  |
| 9 | 722,5116 |  | 12,7 | 16,4978 | 4,832599 |  | 9 | 6,1 | 1,391743 |  |
| 10 | 838,6345 |  | 13 | 17,74044 | 5,246813 |  | 10 | 6,6 | 1,398662 |  |
| 11 | 476,7687 |  | 13,3 | 12,68803 | 3,562676 |  | 11 | 7,1 | 1,428223 |  |
| 12 | 876,8904 |  | 13,6 | 17,78927 | 5,263089 |  | 12 | 7,6 | 1,432508 |  |
| 13 | 830,3831 |  | 13,9 | 17,06339 | 5,021129 |  | 13 | 8,1 | 1,432817 |  |
| 14 | 505,9559 |  | 14,2 | 12,69453 | 3,564842 |  | 14 | 8,6 | 1,459338 |  |
| 15 | 318,2637 |  | 14,5 | 9,525246 | 2,508415 |  | 15 | 9,1 | 1,473025 |  |
| 16 | 578,3824 |  | 14,8 | 13,43005 | 3,810015 |  | 16 | 9,6 | 1,464595 |  |
| 17 | 645,358 |  | 15,1 | 14,16169 | 4,053898 |  | 17 | 10,1 | 1,477579 |  |
| 18 | 454,4513 |  | 15,4 | 11,41391 | 3,137971 |  | 18 | 10,6 | 1,487744 |  |
| 19 | 364,6745 |  | 15,7 | 9,899921 | 2,633307 |  | 19 | 11,1 | 1,510862 |  |
| 20 | 597,8546 |  | 16 | 13,14157 | 3,713856 |  | 20 | 11,6 | 1,486561 |  |
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|  |  |  | ВАРИАНТ 22 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 157,2491 |  | 4,90854 | 16,72562 | 1,3 |  | 1 | 2,1 | 3,222348 |  |
| 2 | 172,5333 |  | 4,90756 | 16,72268 | 1,6 |  | 2 | 2,6 | 3,407303 |  |
| 3 | 173,5444 |  | 4,675718 | 16,02715 | 1,9 |  | 3 | 3,1 | 3,597297 |  |
| 4 | 77,7397 |  | 2,621526 | 9,864579 | 2,2 |  | 4 | 3,6 | 3,726325 |  |
| 5 | 150,7673 |  | 3,887118 | 13,66135 | 2,5 |  | 5 | 4,1 | 3,823369 |  |
| 6 | 150,6111 |  | 3,713006 | 13,13902 | 2,8 |  | 6 | 4,6 | 3,973936 |  |
| 7 | 198,9197 |  | 4,260399 | 14,7812 | 3,1 |  | 7 | 5,1 | 3,972793 |  |
| 8 | 122,4278 |  | 2,962182 | 10,88655 | 3,4 |  | 8 | 5,6 | 4,053048 |  |
| 9 | 246,9462 |  | 4,536726 | 15,61018 | 3,7 |  | 9 | 6,1 | 4,170672 |  |
| 10 | 312,372 |  | 5,083009 | 17,24903 | 4 |  | 10 | 6,6 | 4,147267 |  |
| 11 | 221,8105 |  | 3,956962 | 13,87089 | 4,3 |  | 11 | 7,1 | 4,288847 |  |
| 12 | 272,5932 |  | 4,381892 | 15,14568 | 4,6 |  | 12 | 7,6 | 4,317441 |  |
| 13 | 231,31 |  | 3,818989 | 13,45697 | 4,9 |  | 13 | 8,1 | 4,301608 |  |
| 14 | 297,0799 |  | 4,368844 | 15,10653 | 5,2 |  | 14 | 8,6 | 4,328304 |  |
| 15 | 273,2914 |  | 4,024677 | 14,07403 | 5,5 |  | 15 | 9,1 | 4,344977 |  |
| 16 | 347,4828 |  | 4,58079 | 15,74237 | 5,8 |  | 16 | 9,6 | 4,389314 |  |
| 17 | 185,1834 |  | 2,915755 | 10,74726 | 6,1 |  | 17 | 10,1 | 4,4338 |  |
| 18 | 271,2502 |  | 3,701224 | 13,10367 | 6,4 |  | 18 | 10,6 | 4,427895 |  |
| 19 | 297,7507 |  | 3,84474 | 13,53422 | 6,7 |  | 19 | 11,1 | 4,398569 |  |
| 20 | 240,4134 |  | 3,242234 | 11,7267 | 7 |  | 20 | 11,6 | 4,511578 |  |
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|  |  |  | ВАРИАНТ 23 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 177,5978 |  | 3,908771 | 3,2 | 13,72631 |  | 1 | 2,1 | 2,673872 |  |
| 2 | 257,2371 |  | 4,82272 | 3,4 | 16,46816 |  | 2 | 2,6 | 2,861018 |  |
| 3 | 263,5235 |  | 4,78123 | 3,6 | 16,34369 |  | 3 | 3,1 | 3,001582 |  |
| 4 | 199,0418 |  | 3,903235 | 3,8 | 13,7097 |  | 4 | 3,6 | 3,08211 |  |
| 5 | 131,6867 |  | 2,87639 | 4 | 10,62917 |  | 5 | 4,1 | 3,205684 |  |
| 6 | 103,6429 |  | 2,352824 | 4,2 | 9,058471 |  | 6 | 4,6 | 3,311214 |  |
| 7 | 297,2492 |  | 4,725492 | 4,4 | 16,17647 |  | 7 | 5,1 | 3,329147 |  |
| 8 | 149,5796 |  | 2,926597 | 4,6 | 10,77979 |  | 8 | 5,6 | 3,38016 |  |
| 9 | 283,2067 |  | 4,401807 | 4,8 | 15,20542 |  | 9 | 6,1 | 3,436159 |  |
| 10 | 133,7645 |  | 2,578505 | 5 | 9,735515 |  | 10 | 6,6 | 3,496892 |  |
| 11 | 178,615 |  | 3,105686 | 5,2 | 11,31706 |  | 11 | 7,1 | 3,521518 |  |
| 12 | 274,2424 |  | 4,071162 | 5,4 | 14,21349 |  | 12 | 7,6 | 3,593544 |  |
| 13 | 395,6918 |  | 5,059064 | 5,6 | 17,17719 |  | 13 | 8,1 | 3,568358 |  |
| 14 | 163,0938 |  | 2,738348 | 5,8 | 10,21504 |  | 14 | 8,6 | 3,608014 |  |
| 15 | 172,3363 |  | 2,794925 | 6 | 10,38478 |  | 15 | 9,1 | 3,617423 |  |
| 16 | 331,057 |  | 4,293888 | 6,2 | 14,88166 |  | 16 | 9,6 | 3,678099 |  |
| 17 | 255,7431 |  | 3,556504 | 6,4 | 12,66951 |  | 17 | 10,1 | 3,68566 |  |
| 18 | 376,0698 |  | 4,51714 | 6,6 | 15,55142 |  | 18 | 10,6 | 3,746784 |  |
| 19 | 255,8428 |  | 3,440894 | 6,8 | 12,32268 |  | 19 | 11,1 | 3,698533 |  |
| 20 | 431,3363 |  | 4,786564 | 7 | 16,35969 |  | 20 | 11,6 | 3,713715 |  |
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|  |  |  | ВАРИАНТ 24 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 308,2826 |  | 4,064451 | 14,19335 | 6,3 |  | 1 | 2,1 | 3,705228 |  |
| 2 | 232,5674 |  | 3,275265 | 11,8258 | 6,6 |  | 2 | 2,6 | 3,965092 |  |
| 3 | 151,1293 |  | 2,327194 | 8,981581 | 6,9 |  | 3 | 3,1 | 4,187554 |  |
| 4 | 222,7973 |  | 3,022881 | 11,06864 | 7,2 |  | 4 | 3,6 | 4,326714 |  |
| 5 | 491,6141 |  | 5,021463 | 17,06439 | 7,5 |  | 5 | 4,1 | 4,433841 |  |
| 6 | 365,986 |  | 4,063136 | 14,18941 | 7,8 |  | 6 | 4,6 | 4,628453 |  |
| 7 | 186,8864 |  | 2,470465 | 9,411396 | 8,1 |  | 7 | 5,1 | 4,699888 |  |
| 8 | 348,1325 |  | 3,770959 | 13,31288 | 8,4 |  | 8 | 5,6 | 4,783541 |  |
| 9 | 204,6696 |  | 2,527425 | 9,582275 | 8,7 |  | 9 | 6,1 | 4,806651 |  |
| 10 | 546,4431 |  | 4,882516 | 16,64755 | 9 |  | 10 | 6,6 | 4,873736 |  |
| 11 | 274,665 |  | 3,010305 | 11,03091 | 9,3 |  | 11 | 7,1 | 4,893964 |  |
| 12 | 639,2631 |  | 5,212016 | 17,63605 | 9,6 |  | 12 | 7,6 | 4,948145 |  |
| 13 | 424,2422 |  | 3,923481 | 13,77044 | 9,9 |  | 13 | 8,1 | 5,042897 |  |
| 14 | 587,6005 |  | 4,780101 | 16,3403 | 10,2 |  | 14 | 8,6 | 5,095017 |  |
| 15 | 324,3107 |  | 3,145522 | 11,43657 | 10,5 |  | 15 | 9,1 | 5,143857 |  |
| 16 | 239,7101 |  | 2,470713 | 9,412138 | 10,8 |  | 16 | 9,6 | 5,208135 |  |
| 17 | 681,5223 |  | 5,018184 | 17,05455 | 11,1 |  | 17 | 10,1 | 5,14346 |  |
| 18 | 327,301 |  | 3,006791 | 11,02037 | 11,4 |  | 18 | 10,6 | 5,253494 |  |
| 19 | 657,176 |  | 4,760933 | 16,2828 | 11,7 |  | 19 | 11,1 | 5,142927 |  |
| 20 | 518,248 |  | 4,012749 | 14,03825 | 12 |  | 20 | 11,6 | 5,190766 |  |
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|  |  |  | ВАРИАНТ 25 | |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| № | y |  | x1 | x2 | x3 |  |  | x | y |  |
| 1 | 272,0771 |  | 6,3 | 13,22049 | 3,740165 |  | 1 | 2,1 | 4,820132 |  |
| 2 | 295,4519 |  | 6,6 | 13,56725 | 3,855751 |  | 2 | 2,6 | 5,126705 |  |
| 3 | 322,6373 |  | 6,9 | 13,97802 | 3,992674 |  | 3 | 3,1 | 5,338052 |  |
| 4 | 469,6192 |  | 7,2 | 16,94163 | 4,980544 |  | 4 | 3,6 | 5,584897 |  |
| 5 | 224,7974 |  | 7,5 | 10,90918 | 2,969726 |  | 5 | 4,1 | 5,76771 |  |
| 6 | 216,138 |  | 7,8 | 10,45699 | 2,818998 |  | 6 | 4,6 | 5,852211 |  |
| 7 | 293,7831 |  | 8,1 | 12,28398 | 3,427992 |  | 7 | 5,1 | 6,026836 |  |
| 8 | 452,1079 |  | 8,4 | 15,45207 | 4,484022 |  | 8 | 5,6 | 6,157068 |  |
| 9 | 424,7276 |  | 8,7 | 14,6686 | 4,222867 |  | 9 | 6,1 | 6,226403 |  |
| 10 | 496,9739 |  | 9 | 15,78001 | 4,593336 |  | 10 | 6,6 | 6,297627 |  |
| 11 | 442,0117 |  | 9,3 | 14,53394 | 4,177981 |  | 11 | 7,1 | 6,379548 |  |
| 12 | 230,0429 |  | 9,6 | 9,768294 | 2,589431 |  | 12 | 7,6 | 6,431845 |  |
| 13 | 574,3352 |  | 9,9 | 16,36397 | 4,787989 |  | 13 | 8,1 | 6,456139 |  |
| 14 | 640,0394 |  | 10,2 | 17,14699 | 5,048997 |  | 14 | 8,6 | 6,590303 |  |
| 15 | 558,2393 |  | 10,5 | 15,65132 | 4,55044 |  | 15 | 9,1 | 6,534062 |  |
| 16 | 389,2901 |  | 10,8 | 12,54548 | 3,515159 |  | 16 | 9,6 | 6,637269 |  |
| 17 | 556,5809 |  | 11,1 | 15,20486 | 4,401619 |  | 17 | 10,1 | 6,649888 |  |
| 18 | 425,958 |  | 11,4 | 12,86228 | 3,620759 |  | 18 | 10,6 | 6,656137 |  |
| 19 | 244,7834 |  | 11,7 | 9,131652 | 2,377217 |  | 19 | 11,1 | 6,737499 |  |
| 20 | 659,4111 |  | 12 | 16,11145 | 4,703816 |  | 20 | 11,6 | 6,816357 |  |
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