



Mathematician: \_\_\_\_\_

| Wednesday  | Thursday           | Friday  |         |       |           |    |     |     |            |    |     |     |       |    |     |     |  |      |                    |      |      |      |      |  |
|--|--------------------|---------|---------|-------|-----------|----|-----|-----|------------|----|-----|-----|-------|----|-----|-----|--|------|--------------------|------|------|------|------|--|
| <p>Number of Pioneers contracting colds</p> <table border="1" data-bbox="997 86 1243 701"> <tr> <th></th> <th>cold</th> <th>no cold</th> <th>total</th> </tr> <tr> <td>vitamin c</td> <td>21</td> <td>129</td> <td>150</td> </tr> <tr> <td>sugar pill</td> <td>33</td> <td>117</td> <td>150</td> </tr> <tr> <td>total</td> <td>54</td> <td>246</td> <td>300</td> </tr> </table> <p>The table shows the results of a research study that investigated the therapeutic value of vitamin c in preventing colds. A random sample of 300 adults received either a vitamin c pill or a sugar pill each day during a 2 week period, and the Pioneers reported whether they contracted a cold during that time period. What proportion of Pioneers who received a sugar pill reported contracting a cold?</p> <p>a) 11/18<br/>                 b) 11/50<br/>                 c) 9/50<br/>                 d) 11/100</p> <p>What was your answer <b>BEFORE</b> you reduced the fraction?<br/>                 _____</p> |                    | cold    | no cold | total | vitamin c | 21 | 129 | 150 | sugar pill | 33 | 117 | 150 | total | 54 | 246 | 300 | <table border="1" data-bbox="1057 737 1260 1178"> <tr> <th>Year</th> <th>Subscriptions sold</th> </tr> <tr> <td>2012</td> <td>5600</td> </tr> <tr> <td>2013</td> <td>5880</td> </tr> </table> <p>The manager of an online news service received the report above on the number of subscriptions sold by the service. The manager estimated that the percent increase from 2012 to 2013 would be double the percent increase from 2013 to 2014. How many subscriptions did the manager expect would be sold in 2014?</p> <p>a) 6020<br/>                 b) 6027<br/>                 c) 6440<br/>                 d) 6468</p> <p>What strategy did you use to solve this problem? Explain.<br/>                 _____<br/>                 _____<br/>                 _____<br/>                 _____</p> | Year | Subscriptions sold | 2012 | 5600 | 2013 | 5880 | <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-bottom: 10px;">                     1 decagram = 10 grams<br/>                     1000 milligrams = 1 gram                 </div> <p>A hospital stores one type of medicine in 2-decagram containers. Based on the information given in the box above, how many 1 milligram doses are there in one 2-decagram container?</p> <p>a) 0.002<br/>                 b) 200<br/>                 c) 2000<br/>                 d) 20,0000</p> <p>Ahlan walks 25 meters in 13.7 seconds. If she walks at the same rate, which of the following is closest to the distance she will walk in 4 minutes?</p> <p>a) 150 meters<br/>                 b) 450 meters<br/>                 c) 700 meters<br/>                 d) 1400 meters</p> <p>Make a visual model to explain one of the above problems:<br/>                 _____<br/>                 _____<br/>                 _____</p> |
|  | cold               | no cold | total   |       |           |    |     |     |            |    |     |     |       |    |     |     |  |      |                    |      |      |      |      |  |
| vitamin c  | 21                 | 129     | 150     |       |           |    |     |     |            |    |     |     |       |    |     |     |  |      |                    |      |      |      |      |  |
| sugar pill   | 33                 | 117     | 150     |       |           |    |     |     |            |    |     |     |       |    |     |     |  |      |                    |      |      |      |      |  |
| total  | 54                 | 246     | 300     |       |           |    |     |     |            |    |     |     |       |    |     |     |  |      |                    |      |      |      |      |  |
| Year   | Subscriptions sold |         |         |       |           |    |     |     |            |    |     |     |       |    |     |     |  |      |                    |      |      |      |      |  |
| 2012   | 5600               |         |         |       |           |    |     |     |            |    |     |     |       |    |     |     |  |      |                    |      |      |      |      |  |
| 2013   | 5880               |         |         |       |           |    |     |     |            |    |     |     |       |    |     |     |  |      |                    |      |      |      |      |  |