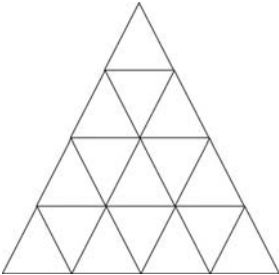



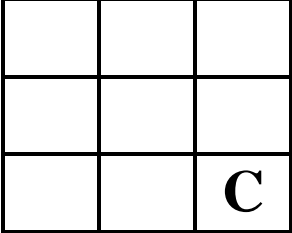
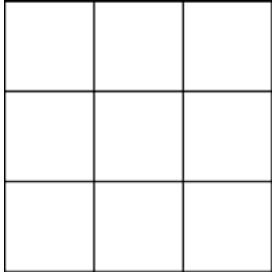
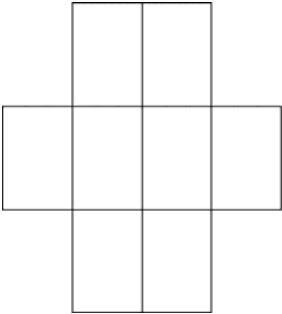
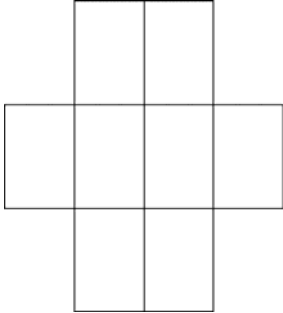






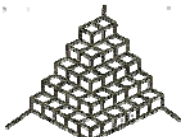
## 7<sup>th</sup> grade Team Bowl

1.	<p>The Krane children were born 2 years apart. When Michael, the youngest of the 6 Krane children was 1 year old, the sum of the ages of all the children was <math>1+3+5+7+9+11</math>, or 36, a perfect square. How old was Michael the next time the sum of the “children’s” ages was a perfect square?</p>	1. _____
2.	<p>The midpoints of the sides of square ABCD are joined to form a second square as shown. The midpoints of the sides of the second square are joined to form a third square as shown. If the area of ABCD is 100 square units, find the number of square units in the area of the shaded region.</p> <div style="text-align: center;"> </div>	2. _____
3.	<p>Six arrows land on the target shown below. Each arrow is in one of the regions of the target. Which of the following total scores is possible: 16, 19, 26, 31, 41, 44?</p> <div style="text-align: center;"> </div>	3. _____

4.	A purse contains 4 pennies, 2 nickels, 1 dime, and 1 quarter. Different values can be obtained by using one or more coins in the purse. How many different values can be obtained?	4. _____
5.	A book has 250 pages (each 0.005 inches thick), 2 covers (each 0.1 inches thick), and a front and back page (each 0.003 inches thick). How thick is the book, in inches? Give your answer as a decimal to the thousandths place.	5. _____
6.	How many equilateral triangles can you uncover in the pattern below?  	6. _____
7.	Draw two squares inside the square below to create nine separate enclosures, each containing one turkey.  	7.  
8.	I got immunized on the one millionth second of this calendar year. What date did I get immunized?  	8. _____

<p>9.</p>	<p>Fill out the grid below using the following clues.</p> <ol style="list-style-type: none"> <li>B is in the same column as E and H.</li> <li>F is to the left of B and directly above D.</li> <li>G is to the right of E and directly above I.</li> <li>D is directly left of H and in the same column as A.</li> </ol> <div style="text-align: center;">  </div>	<p>9.</p> <div style="text-align: center;">  </div>
<p>10.</p>	<p>What is the average of the first 99 positive whole numbers?</p>	<p>10. _____</p>
<p>11.</p>	<p>Using the piece of scratch paper, cut eight rectangular cards that will fit in the boxes below. Write a 1 on the first card, a 2 on the second card, and so on, until you have the cards numbered from 1 to 8. The challenge in this puzzle is to place the number cards in the rectangles below so that no two consecutive numbers are next to each other horizontally, vertically, or diagonally. For example, if the 5 is placed in the far left box, then the 4 or 6 can't be placed in the box directly to the right of the 5 or two boxes that are diagonally above and below the 5.</p> <div style="text-align: center;">  </div>	<p>11.</p> <div style="text-align: center;">  </div>

<p>12.</p>	<p>A group of children riding on bicycles and tricycles rode past Billy Bob's house. Billy Bob counted 7 children and 19 wheels. How many tricycles were there?</p> 	<p>12. _____</p>																																																																												
<p>13.</p>	<p>Adam is older than Bob and Carl. Carl is older than Rich. Eli is younger than Bob but older than Rich. Eli is younger than Carl. Adam is younger than Mark. Who is the second oldest man in the group?</p>	<p>13. _____</p>																																																																												
<p>14.</p>	<p>Three dice with faces numbered 1 through 6 are stacked as shown. Seven of the eighteen faces are visible, leaving eleven faces hidden (back, bottom, between). The total number of dots NOT visible in this view is _____.</p> 	<p>14. _____</p>																																																																												
<p>15.</p>	<p>Fill in the grids with the numbers one through five. Each number must appear once in every row and column. The small numbers indicate the sum of the digits in the two (or three) connecting squares. Look at the example to help you.</p> <p>Example:</p> <table border="1" data-bbox="316 1470 495 1648"> <tr><td>3</td><td>1</td><td>2</td><td>4</td></tr> <tr><td>4</td><td>2</td><td>3</td><td>1</td></tr> <tr><td>2</td><td>4</td><td>1</td><td>3</td></tr> <tr><td>1</td><td>3</td><td>4</td><td>2</td></tr> </table> <table border="1" data-bbox="763 1459 1096 1795"> <tr><td>3</td><td></td><td>3</td><td></td><td></td></tr> <tr><td>7</td><td></td><td>5</td><td>6</td><td>9</td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td>4</td><td></td><td>9</td><td></td></tr> <tr><td></td><td></td><td></td><td>7</td><td>3</td></tr> <tr><td>7</td><td>9</td><td></td><td></td><td>6</td></tr> </table>	3	1	2	4	4	2	3	1	2	4	1	3	1	3	4	2	3		3			7		5	6	9	4						4		9					7	3	7	9			6	<p>15.</p> <table border="1" data-bbox="1128 1386 1404 1659"> <tr><td>3</td><td></td><td>3</td><td></td><td></td></tr> <tr><td>7</td><td></td><td>5</td><td>6</td><td>9</td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td>4</td><td></td><td>9</td><td></td></tr> <tr><td></td><td></td><td></td><td>7</td><td>3</td></tr> <tr><td>7</td><td>9</td><td></td><td></td><td>6</td></tr> </table>	3		3			7		5	6	9	4						4		9					7	3	7	9			6
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16.	A restaurant menu features 5 different appetizers and 3 different main dishes. A diner decides to order 2 appetizers and 1 main dish. How many such different orders can he make?	16. _____
17.	When asked how many gold coins he had, the collector said: If I arrange them in stacks of five, none are left over. If I arrange them in stacks of six, none are left over. If I arrange them in stacks of seven, one is left over. What is the least number of coins he could have?	17. _____
18.	When the order of the digits of 2552 is reversed, the number remains the same. How many counting numbers between 100 and 1000 remain the same when the order of the number's digits is reversed?	18. _____
19.	The tower shown below is made of horizontal layers of unit cubes, not all being visible in the diagram. How many unit cubes are contained in the tower? 	19. _____
20.	In the addition problem below, there are three two-digit numbers in which different letters represent different digits. What digits do A, B, and C represent? $\begin{array}{r} A A \\ B B \\ + C C \\ \hline B A C \end{array}$	20. _____