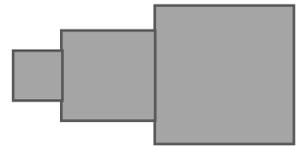
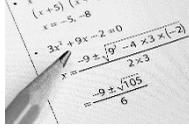
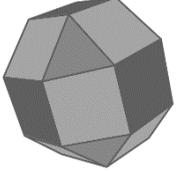
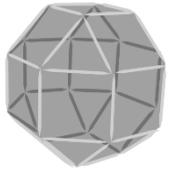


5 POINTS	
1.	If Sonia had baked eight more cookies, she could have put four cookies on each of 23 plates. How many dozen cookies did she bake? A. 6 B. 7 C. 8 D. 9 E. 5
2.	 How many 6 cm long color pencils can form a square with a perimeter of 48 cm? A. 8 B. 12 C. 6 D. 14 E. 10
3.	Jillian can jump a distance of $4\frac{1}{4}$ feet, and Soraya can jump a distance of $6\frac{1}{8}$ feet. How many inches farther can Soraya jump than Jillian? A. 22 inches B. 23 inches C. 24 inches D. 20 inches E. 18 inches
4.	If the day before the day before yesterday was Tuesday, what day will it be 20 days from tomorrow? A. Wednesday B. Thursday C. Friday D. Saturday E. Monday
5.	At a bank, Donna exchanged a \$10 bill for an equal number of nickels, dimes, and quarters. How many of each type of coin did Donna receive? A. 20 B. 22 C. 24 D. 25 E. 30
6.	Henry has a large poster board that is two and a half feet wide and eight feet tall. He cuts it into two congruent rectangles. He then takes one of the halves and cuts it into two congruent triangles. What is the area of one of the triangles? A. 10 sq. ft. B. 6 sq. ft. C. 5 sq. ft. D. 12 sq. ft. E. 4 sq. ft.
7.	Allison hosted a party. To prepare for a game at her party, she gave each of the guests a slip of paper with a number on it. Each slip of paper had a number 3 larger than on the previous slip. The first number she gave out was 35. The last person arrived was given a piece of paper with the number 122. How many guests came to Allison's party? A. 32 B. 26 C. 28 D. 29 E. 30
8.	The figure on the right is made of 3 squares. The side of the large square is 3 cm, the side of the medium square is 2 cm, and the side of the small square is 1 cm. What is the perimeter of the figure?  A. 18 cm B. 19 cm C. 20 cm D. 21 cm E. 20.5 cm

7 POINTS											
9.	 There are 10 players in the tennis tournament. If each game is played by 2 players, and each player plays every other player exactly once, what is the total number of games played in the tournament? A. 100 B. 90 C. 45 D. 20 E. 21										
10.	A bucket was half full. 1.5 liters of liquid cleaner were then added to the bucket. The bucket is now three-quarters full. What is the volume of the bucket? A. 6 liters B. 5 liters C. 4.5 liters D. 4 liters E. 3.5 liters										
11.	A group of math students stands in a circle. Each is assigned one number starting at 1 and in increasing order by 1 around the circle. Person 57 is across from Person 163. Which number is across from Person 33? A. 90 B. 106 C. 136 D. 138 E. 139										
12.	12 boys and 12 girls attend prom at Columbia High School. If each boy dances once with each of the girls, how many dances occur total? A. 132 B. 66 C. 72 D. 144 E. 121										
13.	 If Tom can solve 3 math problems in 10 seconds and Dan can solve 10 math problems in one minute, how long, in minutes, will it take them together to solve 420 math problems? A. 12 min. B. 15 min. C. 20 min. D. 900 sec. E. 720 sec.										
14.	The Jazz Band is going to a Jazz Festival 869 miles away. After traveling 99 miles, they realize that Hunter forgot his viola and must go back to get it. How many total miles was their trip to the Jazz Festival? A. 968 miles B. 1067 miles C. 1076 miles D. 1166 miles E. 1057 miles										
15.	Five cards are laying on the table in the order: M, A, R, C, H as shown in the top row of the picture. They need to be placed in the order shown in the bottom row. In each move, any two cards may be switched. What is the least number of moves that need to be made? <table border="1" data-bbox="2231 1258 2553 1380"> <tr> <td>M</td> <td>A</td> <td>R</td> <td>C</td> <td>H</td> </tr> <tr> <td>C</td> <td>H</td> <td>A</td> <td>R</td> <td>M</td> </tr> </table> A. 2 B. 3 C. 4 D. 5 E. 6	M	A	R	C	H	C	H	A	R	M
M	A	R	C	H							
C	H	A	R	M							

10 POINTS	
<p>16. Mia is practicing her multiplication facts using 2 dice. Each die is numbered from 1 to 6. He rolls two dice and finds the product of the two numbers. How many different products can she get?</p> <p>A. 36 B. 18 C. 16 D. 15 E. 30</p>	
<p>17. Lori is stranded on an island. He found a large bag of pretzels, which is his only food supply until someone rescues him. On the first day, he eats one-fourth of his food supply. On the second day, he eats one fourth of the remaining food. On the third day, he eats one fourth of the remaining food. If he had $\frac{3}{4}$ of a pound left after the third day, how many pounds of pretzels was in the bag when he found it?</p> <p>A. 3 lbs. B. $13\frac{1}{6}$ lbs. C. $12\frac{1}{4}$ lbs. D. $16\frac{1}{9}$ lbs. E. 16/9 lbs.</p>	
<p>18.</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>Solid Model</p>  </div> <div style="margin-right: 20px;"> <p>Wireframe</p>  </div> <div> <p>The figures on the left is a rhombicuboctahedron, which is a 3D solid that has 18 square faces and 8 triangular faces. How many toothpicks (to create edges) were used to the model rhombicuboctahedron pictured of the wireframe model?</p> </div> </div> <p>A. 72 B. 54 C. 48 D. 42 E. 36</p>	
<p>19. How many whole numbers greater than 12 and less than 57 cannot be written as the sum of two odd numbers?</p> <p>A. 23 B. 19 C. 21 D. 22 E. 20</p>	
<p>20. Using 6 crayons, only one rectangle with a perimeter of 6 crayons can be made (see the picture). How many different rectangles with a perimeter of 40 crayons can be made without breaking any crayon?</p>	
<p>A. 6 B. 8 C. 10 D. 9 E. 11</p>	

MATH CHALLENGE TOURNAMENT MASTERS

MARCH 18, 2017

PROBLEM SOLVING CHALLENGE Grade 4

Sponsored by Ellipsis Academy



Name: _____

- You may use scratch paper to do any calculation to reach final answers.
 - Mark your answers in the ANSWER SHEET.
- You have 40 minutes to complete the Problem-Solving Challenge

There are 20 questions