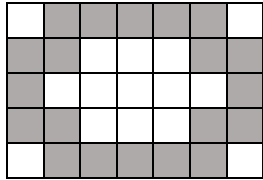
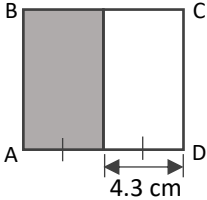
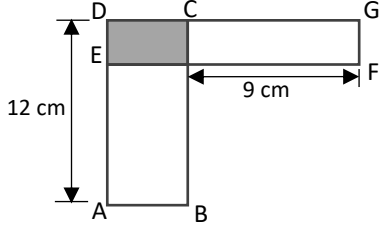
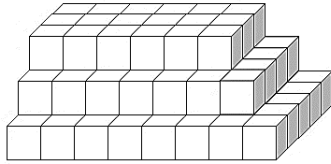
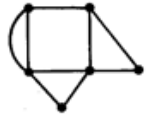


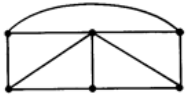


5 POINTS	
1.	Blake, Rohan and Dustin saved \$10,473 altogether. If Blake saved \$3,820 and Rohan saved \$1,132 less than Blake, how much did Dustin save? A. \$2760 B. \$4389 C. \$3965 D. \$5521 E. \$6653
2.	A tank was $\frac{1}{8}$ filled with water. After adding 2.4 liters of water, it became half filled. What was the capacity of the tank? A. 6.4 liters B. 6.2 liters C. 6 liters D. 5.8 liters E. 3.2 liters
3.	The figure below is made up of identical squares. Each small square has a side length of 2 cm. Find the outside perimeter of the shaded region. 
	A. 38 cm B. 44 cm C. 48 cm D. 60 cm E. 64 cm
4.	One loaf of bread costs \$1.65. How many five-dollar bills does Mrs. Hein need to buy 12 loaves of bread? A. 3 B. 4 C. 5 D. 6 E. 19
5.	Anita and Bianca baked some cookies. Anita ate 12 of the cookies. She ate twice as many cookies as Bianca. If they baked 39 cookies, how many cookies were left? A. 27 B. 25 C. 23 D. 21 E. 3
6.	In the figure shown, ABCD is a square. Find the area of the shaded region. 
	A. 18.49 cm ² B. 21.16 cm ² C. 26.89 cm ² D. 36.98 cm ² E. 21.16 cm ²
7.	If I have as many pennies as nickels, then the total value of all these coins could be A. \$0.50 B. \$1.00 C. \$1.50 D. \$1.75 E. \$1.85
8.	$\begin{array}{r} \text{☀} + \text{😊} + \text{☾} + \text{☀} = 6041 \\ \text{☀} + \text{☀} + \text{☀} = 7302 \\ \text{😊} + \text{☾} = ? \end{array}$ <p>Find the value of the question mark.</p>
	A. 1217 B. 1237 C. 1173 D. 2434 E. 3607

7 POINTS	
9.	How many perfect squares less than or equal to 100 are the sum of two consecutive whole numbers? A. 2 B. 4 C. 5 D. 7 E. 10
10.	In the figure shown below, ABCD and DEFG are rectangles. Their areas are 60 cm ² and 28 cm ² respectively. Find the area of the shaded part. 
	A. 8 cm ² B. 9 cm ² C. 10 cm ² D. 12 cm ² E. 14 cm ²
11.	If you skip-count backwards by 5s starting from 83 and not going below 0, how many of those whole numbers will be multiples of 3? A. 5 B. 6 C. 7 D. 8 E. 9
12.	Alan, Ben, Dina agreed on a 3-digit number. Alan said the number is a multiple of 3, 5, and 7. Ben said the number is a multiple of 2 and 6. Dina said exactly one of the 3-digits is 3. What is the number they chose? A. 630 B. 310 C. 430 D. 840 E. 480
13.	The solid 3-D object shown is composed of layers of unit cubes. The object is then glued to the table. If the object is then painted all around, how many unit cubes will have exactly two faces painted? 
	A. 20 B. 23 C. 25 D. 26 E. 28
14.	Sam sold handmade cutting boards at the Pike Market last Saturday and Sunday. He sold $\frac{4}{9}$ of them last Saturday and $\frac{1}{3}$ of them on Sunday. At closing on Sunday, he had 66 cutting boards left. How many cutting boards did Sam have at first? A. 303 B. 297 C. 291 D. 287 E. 285
15.	Two-fifth of Maya's buttons are blue while the rest are white. Among the white buttons, two-third of them are square while the rest are round. What fraction of the buttons are white and round? A. $\frac{1}{5}$ B. $\frac{2}{5}$ C. $\frac{3}{5}$ D. $\frac{1}{3}$ E. $\frac{1}{2}$

10 POINTS	
16.	If 6 machines can assemble 9 toys in 4 minutes, then without stopping, how many machines would be needed to assemble 8100 toys in one full 24-hour day? A. 15 B. 14 C. 12 D. 8 E. 6
17.	After each of 50 cards is marked with different whole numbers from 1 through 50, the cards are then paired at random. At most how many of these 25 pairs have a sum of 25? A. 6 B. 12 C. 13 D. 24 E. 25
18.	A floor has a measurement of 2 meters by 1.2 meters. How many tiles are needed to cover it up if the area of each tile is 24 cm ² ? A. 2,400 B. 1,200 C. 1,024 D. 1,000 E. 100
19.	Each of the following connected networks consists of segments and curves. A connected network is said to be <i>traversable</i> if we can trace the network without lifting our pencil from the paper. We must trace each of the segments or curves exactly once. Which of the following connected networks is NOT traversable? A.  B.  C.  D.  E. B and C
20.	How many whole numbers from 1 through 500 have a 3 as the hundreds digit or ones digit, but not as both? A. 130 B. 140 C. 150 D. 155 E. 160

MATH CHALLENGE TOURNAMENT MASTERS 2019

April 20, 2019



Problem Solving Challenge

Grade 4

Problem 1 – 20

Do not begin until you are instructed to do so.

Problem Solving Challenge (40 minutes)

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