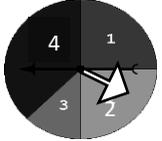
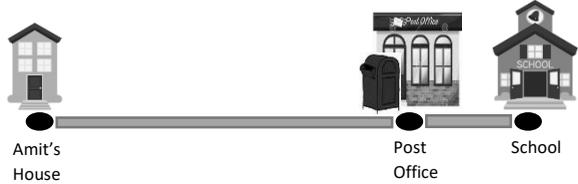


5 POINTS

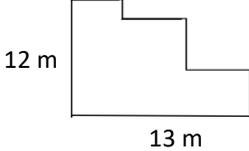
1. The product of all the factors of 10 is equal to _____.
 A. 17 B. 100 C. 50 D. 200 E. 10

2.  Mathew has made a circular spinner. If he spins this spinner 1000 times, how many times approximately can he expect to get a 1?
 A. 100 times B. 500 times C. 650 times D. 750 times E. 250 times

3. The distance from Amit's house to the school is 4 times the distance from the post office to the school. The distance from the school to his house is 2 km. What is the distance from his house to the post office?

 A. 1.75 km B. 1.5 km C. 2.2 km D. 2.5 km E. 8 km

4. The sum of nine of the first ten positive whole numbers is 50. Which of these ten whole numbers I did not add?
 A. 1 B. 3 C. 5 D. 7 E. 6

5. Edna lists all the natural numbers from 1 to 50. She then erases 20 even numbers from this list. What fraction of the numbers left are even numbers?
 A. $\frac{1}{2}$ B. $\frac{5}{6}$ C. $\frac{2}{7}$ D. $\frac{1}{6}$ E. $\frac{3}{8}$

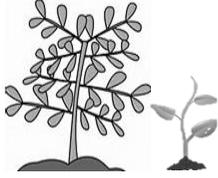
6. The perimeter of the figure on the right is equal to _____.

 A. 48 m B. 50 m C. 52 m D. 54 m E. 56 m

7.  A snail fell into a hole that was 10-feet deep. It started climbing up. Every day it would climb 3 feet up but then it would fall 2 feet down while sleeping during the night. After how many days would the snail climb out of the hole?
 A. 8 days B. 7 days C. 6 days D. 5 days E. 9 days

8. Ashley and Hailey go into a restaurant. There are 4 hooks on a wall. Each one hangs her hat on one of the hooks. How many different ways can they hang their hats?

 A. 4 B. 12 C. 8 D. 24 E. 16

7 POINTS

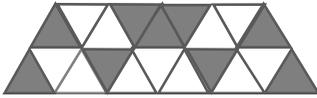
9.  In Mrs. Saumya's garden, there are two plants. One is 44 inches tall, and it grows 3 inches every 2 years. The other is 80 inches tall, and it grows 5 inches every 6 years. In how many years will the two plants have the same height?
 A. 36 years B. 40 years C. 48 years D. 52 years E. 54 years

10. If I start with \$100, increase my money by 50%, then decrease that amount by 50%, how much money will I have?

 A. \$50 B. \$100 C. \$110 D. \$125 E. \$75

11. A piece of paper is 0.1 mm thick. How many times must it be folded in half so that the folded paper is more than $\frac{1}{2}$ mm thick?

 A. 1 B. 2 C. 3 D. 4 E. 5

12. The figure below shows some identical triangles. How many unshaded triangles must be removed so that unshaded triangles make $\frac{2}{3}$ of the shaded triangles?

 A. 6 B. 5 C. 4 D. 3 E. 2

13. Marko has lost $\frac{2}{5}$ of his weight during the summer. Rounded to the nearest kg, what was his weight at the beginning of the summer if his weight at the end of the summer was 100 kg?
 A. 160 kg B. 140 kg C. 188 kg D. 167 kg E. 171 kg

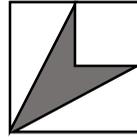
14. The fourth day of a month is a Monday. The last day of this month cannot be a Wednesday, a Tuesday, or a _____.

 A. Saturday B. Sunday C. Monday D. Thursday E. Friday

15. A recent survey of 54 superheroes revealed that 14 of them still wear capes and 41 of them continue to wear a mask. If $\frac{1}{6}$ of all the superheroes wear both a mask and a cape, how many do not wear either a cape or a mask?
 A. 9 B. 8 C. 5 D. 4 E. 3

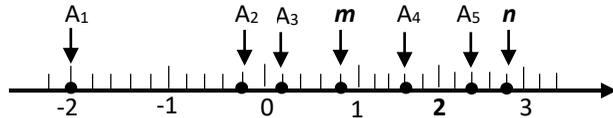
10 POINTS

16. Nora cut a grey shape from a square paper that is 6 inches by 6 inches. Two vertices of the grey quadrangle are the midpoints of the square's sides, and the third vertex is in the center of the square. What is the area of the grey quadrilateral?



- A. 6 in^2 B. 8 in^2 C. 9 in^2 D. 10 in^2 E. 11 in^2

17. Which point on the number line is 4 times farther from point m than from point n ?



- A. A_1 B. A_2 C. A_3 D. A_4 E. A_5

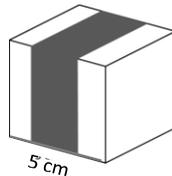
18. A pathway measuring 5 ft. by 2 ft. is paved with stones measuring 2 ft. by 1 ft. One way in which the pathway could be paved is as follows:



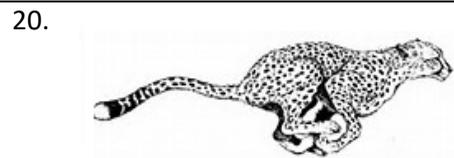
How many different ways can the path be laid?

- A. 10 B. 6 C. 8 D. 7 E. 9

19. Ashley painted part of a wooden cube (10 cm x 10 cm x 10 cm). She applied a coat of paint perpendicular to four edges of the cube (all around the cube) that looks like a strip of ribbon 5 cm wide. What fraction of the cube's total surface did she paint?



- A. $1/3$ B. $1/5$ C. $2/7$ D. $1/4$ E. $3/10$



A cheetah is jogging along at 5 miles per hour for ten seconds until it spots an impala it wants to catch. The cheetah then speeds up and averages 60 miles per hour for the next 40 seconds while it chases the impala. Its prey gets away and the



cheetah slows back down to an average of 5 miles per hour for ten seconds. Rounded to the nearest mile per hour, what is the cheetah's average speed for the entire minute?

- A. 54 mph B. 50 mph C. 46 mph D. 42 mph E. 35 mph

MATH CHALLENGE TOURNAMENT

FALL 2016



Problem Solving Challenge

Grade 5

Problems 1-20

Do not begin until you are instructed to do so.

Name: _____

Problem Solving Challenge (40 minutes)

Mark your answers on the ANSWER SHEET.
You may use scratch paper to do any calculation to reach final answers.