



# Spirit of Math<sup>®</sup>

s c h o o l s

## February 2014 Grade Four Mathematics Contest

Please observe the following instructions:

- 1) You have 45 minutes to write the contest.
- 2) The contest is multiple-choice with four choices for each question. Write the CAPITAL letter of the answer you choose on the line to the right of each question.
- 3) Each question answered correctly is worth one mark, and the sum of the correct answers is the score.
- 4) Marks are not taken off for wrong answers.
- 5) No calculators are allowed.

Student Name: \_\_\_\_\_

Score:     / 30

- 1)  $-17 + 4 - 3 + 36 =$   
 A) 20                      B) 30                      C) 40                      D) 50                      \_\_\_\_\_
- 2) Which of the following is a multiple of 8 and rounds to 50 when rounded to the nearest 10?  
 A) 48                      B) 52                      C) 56                      D) 62                      \_\_\_\_\_
- 3) The number of sides of a pentagon minus the number of sides of a triangle equals \_\_\_\_\_  
 A) 1                      B) 2                      C) 8                      D) 15                      \_\_\_\_\_
- 4) Elliot found some change in his couch! If he found 8 quarters, 10 dimes, and 7 nickels, how much money did he find in total?  
 A) \$3.35                      B) \$3.70                      C) \$3.75                      D) \$4.35                      \_\_\_\_\_
- 5) Julianne's locker combination is the smallest 3-digit palindrome. What is her locker combination?  
 A) 11                      B) 100                      C) 101                      D) 111                      \_\_\_\_\_
- 6) Ethan started his homework at 4:15 p.m. He did his math homework for the first 20 minutes, then science for 15 minutes. He took a 5-minute break after that, and then worked on his English homework for 23 minutes. What time did Ethan finish?  
 A) 6:16 p.m.                      B) 5:18 p.m.                      C) 5:15 p.m.                      D) 5:12 p.m.                      \_\_\_\_\_
- 7) Twenty-three students wrote the SMS Competition. All but 4 received honours. How many received honours?  
 A) 3                      B) 4                      C) 19                      D) 24                      \_\_\_\_\_
- 8) Luke was reading his book *Mathematics for Smarties*. He read 21 pages and finished at the bottom of page 54. What page did he start on?  
 A) 35                      B) 34                      C) 33                      D) 21                      \_\_\_\_\_
- 9) Six friends met up at a Dustin Fever concert and gave each other hugs. If they all hugged each other once, how many hugs were given out?  
 A) 6                      B) 12                      C) 15                      D) 30                      \_\_\_\_\_
- 10) Susie loves socks! Altogether, she has 2 dozen pairs of socks. How many socks does Susie have?  
 A) 48                      B) 36                      C) 24                      D) 12                      \_\_\_\_\_
- 11)  $(X + IV) \times XX =$  \_\_\_\_\_  
 A) 34                      B) 60                      C) 220                      D) 280                      \_\_\_\_\_
- 12)  $\frac{1}{5}$  of  $\frac{1}{4}$  of  $\frac{1}{3}$  of 300 = ?  
 A) 5                      B) 6                      C) 8                      D) 50                      \_\_\_\_\_



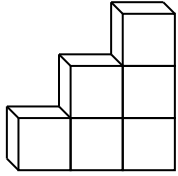
- 13) Amanda traveled to the North Pole for an Arctic expedition, where she saw snowy owls and polar bears. If she counted 11 heads and 36 legs, how many polar bears did she see?  
 A) 7                      B) 9                      C) 11                      D) 36
- 14) The number of days in May and June combined minus the number of days in three weeks equals?  
 A) 39                      B) 40                      C) 41                      D) 61
- 15) Jackie throws a tetrahedral die. What is the probability she will get an even number?  
 A)  $\frac{1}{2}$                       B)  $\frac{1}{3}$                       C)  $\frac{1}{4}$                       D)  $\frac{1}{6}$
- 16) Tina Ballerina danced for 4 hours on Friday, 2 hours on Saturday, and 6 hours on Sunday. What was the average number of hours she danced?  
 A) 3                      B) 4                      C) 6                      D) 12
- 17) The shape I'm thinking of has 3 less sides than the shape that has 4 less than 10 more than 6 sides. What shape am I thinking of?  
 A) Nonagon              B) Octagon              C) Decagon              D) Dodecagon
- 18) Congratulations! You won the candy counting contest! There are 14 caramels, 17 mints, 13 gummy bears, and 15 chocolates in the jar. How many candies do you need to take out without looking before you can be sure you have at least one mint?  
 A) 1                      B) 17                      C) 43                      D) 59
- 19) Which of the following is **false**?  
 A)  $\frac{5}{8} < \frac{10}{16}$               B)  $\frac{1}{4} < \frac{1}{2}$               C)  $\frac{3}{9} = \frac{1}{3}$               D)  $\frac{3}{6} > \frac{2}{7}$
- 20) How many ways are there to arrange the letters in the word LULLABY, including the way to spell LULLABY?  
 A) 24                      B) 56                      C) 840                      D) 5040
- 21) Two numbers have a difference of 10 and a product of 39. The largest of these two numbers is  
 A) 3                      B) 10                      C) 13                      D) 29
- 22) Maya scored 19 on her first test, 16 on her second test, and 23 on her third test. What score does she need to get on her fourth test in order to have an average of 20?  
 A) 20                      B) 22                      C) 23                      D) 25
- 23) Clarissa's birthday party was 3 days before 2 weeks after 4 days before the day after tomorrow. If today is February 10, when is Clarissa's birthday party?  
 A) February 16              B) February 17              C) February 18              D) February 19



24) What comes next in the pattern: 5, 6, 4, 7, 3, \_\_\_\_\_

- A) 2                      B) 4                      C) 6                      D) 8

25) Amelia created the following structure out of cubes and decided to paint it:



How many faces did not get paint on them?

- A) 6                      B) 12                      C) 18                      D) 30

26) Eric found a book where the pages were numbered in an interesting way. Pages 37, 41, 43, 47, and 53 were found all together in this book. What page would be found after page 53?



- A) 54                      B) 55                      C) 57                      D) 59

27) Anah can make 6 paper cranes in 5 minutes. It takes Yolanda twice as long to make the same number of paper cranes. How long will it take them to make 27 paper cranes if they worked together?

- A) 5 min                      B) 10 min                      C) 15 min                      D) 20 min

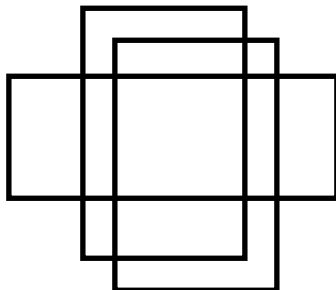
28) At Evan's family reunion, the family played two different games. For the first game, the family formed groups of 16 people. For the second game, the family formed groups of 10 people. If everyone at the reunion played both games, and the teams worked out exactly, what is the smallest possible number of people there could have been at Evan's family reunion?

- A) 10                      B) 16                      C) 80                      D) 160

29) Catherine was walking to her Spirit of Math class, which was quite far from her house! She was walking south and east following a  $5 \times 2$  grid and a  $2 \times 4$  grid. How many ways could Catherine take to get to her class?

- A) 80                      B) 96                      C) 256                      D) 315

30) How many rectangles of all sizes are in the following diagram?



- A) 11                      B) 21                      C) 34                      D) 42

