



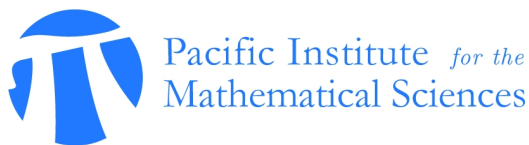
Fifth Annual  
Calgary Elementary School  
Mathematics Contest  
April 27, 2016

LEVEL-2 CONTEST

Instructions:

- You have 50 minutes to answer the 20 questions.
- Record your answer for each question on the separate answer sheet.
- There is no penalty for incorrect answers, so answer every question.
- Good luck!

Sponsors:



**PART A:** Record the correct answer on the separate answer sheet. Each correct answer is worth **5 points**.

1. What is the missing number in the following equation?

$$6 \times (7 \times 8) = 6 \times 7 + ?$$

- (a) 8      (b) 56      (c) 42      (d) 294

2.  $2016 + \frac{2016}{16} - 2016 + 2 + 0 + 1 + 6 = ?$

- (a) 126      (b) 135      (c) 2016      (d) 0

3. The product of three different whole numbers is 6. What is the sum of these numbers?

- (a) 6      (b) 5      (c) 4      (d) 3

4. Which of the following does not describe the number 16?

- (a) prime      (b) integer      (c) even      (d) square

5. What is the difference between the largest and the smallest 4-digit numbers that can be made using the digits 2,3,1,6? No repetition of digits is allowed.

- (a) 7557      (b) 8888      (c) 7683      (d) 5085

6. Mark walked  $1\frac{1}{4}$  hours to school and  $\frac{1}{3}$  of an hour to his friend's house. What is the total amount of time Mark spent walking?

- (a)  $1\frac{1}{7}$  hrs      (b)  $1\frac{7}{12}$  hrs      (c)  $2\frac{1}{4}$  hrs      (d)  $2\frac{1}{3}$  hrs

7. A school bus picks up some kids from the first bus stop. Then the bus goes 2 blocks north, 3 blocks east, 4 blocks south, and 3 blocks west. Where is the bus in relation to the first bus stop?

- (a) 2 blocks east      (b) 2 blocks south  
(c) 3 blocks south      (d) 3 blocks west

8. A toy costs 3 toonies, 2 loonies, 3 quarters, and 25 nickels. I could have paid with how many quarters?

- (a) 32      (b) 36      (c) 40      (d) 44

9. What is the last digit of  $555 \times 666 \times 777$ ?

- (a) 7      (b) 6      (c) 5      (d) 0

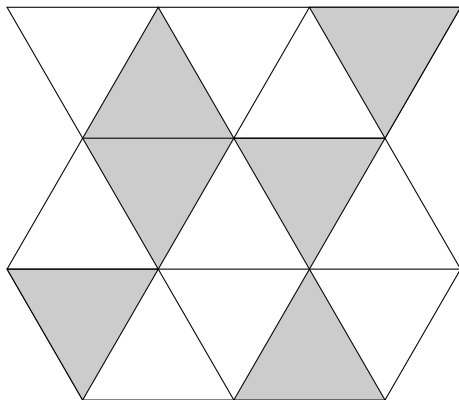
10. Which of the following equations is false?

- (a)  $2 + \frac{14}{10} = 3.4$       (b)  $\frac{2}{10} + \frac{2}{100} = 0.22$   
(c)  $\frac{1}{1000} = 0.01$       (d)  $\frac{19}{10} + 10 = 11.9$

**PART B:** Record the correct answer on the separate answer sheet. Each correct answer is worth **6 points**.

11. Carla divided a secret number by 6. Then she added 6 to the result and multiplied the number she obtained by 6. In the end she got 666. What was Carla's secret number?  
 (a) 630      (b) 105      (c) 111      (d) 36
12. Mark goes to the gym every fourth day while John goes every fifth day. Today is Friday and both of them are at the gym. What day of the week will it be the next time they are both at the gym?  
 (a) Tuesday      (b) Wednesday  
 (c) Thursday      (d) Friday

13. What percentage of the figure below is shaded?

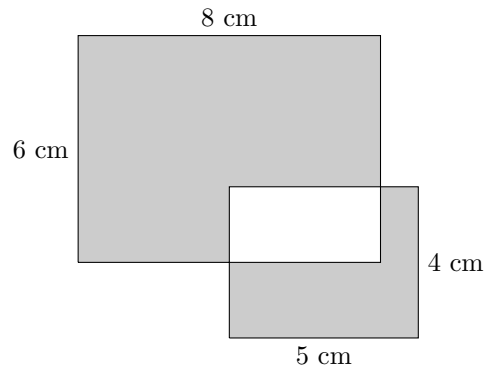


- (a) 30%      (b) 40%      (c) 50%      (d) 20%

14. The product of two consecutive whole numbers is 156. What is the smaller of these two numbers?  
 (a) 13      (b) 14      (c) 12      (d) 9
15. A water tank weighs 5000 lbs when it is full of water. The same water tank weighs 3250 lbs when it is half full of water. How much does the water tank weigh when it is empty?  
 (a) 2000 lbs   (b) 1300 lbs   (c) 1750 lbs   (d) 1500 lbs

**PART C:** Record the correct answer on the separate answer sheet. Each correct answer is worth **8 points**.

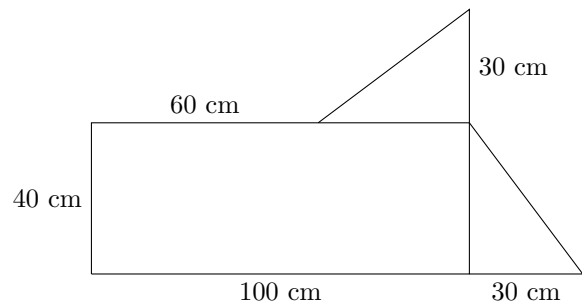
16. Two rectangles with dimensions 6 cm by 8 cm and 4 cm by 5 cm overlap as shown below. The area of the shaded region is  $52 \text{ cm}^2$ . What is the area of the overlapped region?



- (a)  $16 \text{ cm}^2$    (b)  $8 \text{ cm}^2$    (c)  $6 \text{ cm}^2$    (d)  $4 \text{ cm}^2$

17. What is the next number in the sequence:  
 20, 18, 21, 19, 22, 20, 23, 21, 24, 22, ?  
 (a) 25      (b) 26      (c) 23      (d) 24

18. What is the total area of the following figure?



- (a)  $4000 \text{ cm}^2$       (b)  $5200 \text{ cm}^2$   
 (c)  $5800 \text{ cm}^2$       (d)  $6000 \text{ cm}^2$

19. Harry is writing the phrase "Elementary Math Contest" over and over, one word each day starting on January 1, 2016. What word will he write on December 31, 2016? Remember that 2016 is a leap year.  
 (a) Birthday      (b) Elementary  
 (c) Math      (d) Contest
20. Anne, Beth, Carla, and Donna each play one of the following instruments: drums, flute, violin, or guitar. Anne does not play a string instrument. Beth plays drums. Which of the following statements could be true?  
 (a) Anne plays violin.      (b) Beth plays guitar.  
 (c) Carla plays violin.      (d) Donna plays flute.