



**Special Edition**  
**Calgary Elementary School**  
**Mathematics Contest**  
 April 21, 2021

**LEVEL-1 CONTEST**

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

| MARKERS' USE ONLY |  |
|-------------------|--|
| Part A<br>_____×5 |  |
| Part B<br>_____×6 |  |
| Part C<br>_____×8 |  |
| Total             |  |

**Instructions:**

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

**Sponsors:**



Pacific Institute *for the*  
 Mathematical Sciences

**PART A:** Each correct answer is worth **5 points**.

1.  $(19 + 20 + 21 + 22 + 23) \div 5 = ?$   
 (a) 20      (b) 21      (c) 22      (d) 23

2. What is one quarter of one third of 36?  
 (a) 3      (b) 4      (c) 9      (d) 12

3. George writes an equation

$$2\boxed{?}5 + \boxed{?}56 = 591$$

What number goes in  $\boxed{?}$ , the square with the question mark?

- (a) 2      (b) 3      (c) 4      (d) 5

4. A candy store is having a "Buy five, get one free" sale. If one candy costs 20¢, how many candies can you buy with \$6.00?

- (a) 24      (b) 30      (c) 36      (d) 40

5. Which of the following numbers is the greatest?

- (a)  $2 + 0 + 2 + 1$       (b)  $2 \times 0 \times 2 \times 1$   
 (c)  $(2 + 0) \times (2 + 1)$       (d)  $(2 \times 0) + (2 \times 1)$

6. Carla ate  $\frac{3}{4}$  of a 200 gram granola bar. How many grams did she eat?

- (a) 100g      (b) 120g      (c) 150g      (d) 180g

7. I work 15 hours per day, four days per week. If I make \$900 in a week, how much do I make per hour?

- (a) \$10      (b) \$12.50      (c) \$14      (d) \$15

8. What is the next number in the sequence 1, 1, 1, 3, 5, 9, 17, ...

- (a) 22      (b) 27      (c) 31      (d) 35

9. The product of two whole numbers is 7. What is their sum?

- (a) 14      (b) 10      (c) 8      (d) 7

10. Four people made the following statements about the number 347:

**Euclid:** The sum of the digits is 14.

**Socrates:** The units digit is 7.

**Diogenes:** All digits are odd.

**Plato:** All digits are different.

Who was wrong?

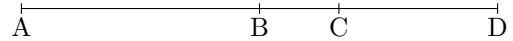
- (a) Euclid   (b) Socrates   (c) Diogenes   (d) Plato

**PART B:** Each correct answer is worth **6 points**.

11. Henry writes all the numbers from 100 to 200 (including 100 and 200). How many times does he write the digit 2?  
(a) 10      (b) 11      (c) 20      (d) 21
12. The area of a rectangle is  $30\text{cm}^2$ . If the length is doubled and the width is tripled, what is the area of the new rectangle?  
(a)  $60\text{cm}^2$    (b)  $90\text{cm}^2$    (c)  $150\text{cm}^2$    (d)  $180\text{cm}^2$
13. The sum of three consecutive even numbers is 36. What is the middle number?  
(a) 8      (b) 12      (c) 16      (d) 20
14. In an airplane the rows are numbered 1 to 20, except there is no row 10 and no row 15. All rows except row 5 have six seats. Row 5 has eight seats. What is the total number of passenger seats?  
(a) 110      (b) 120      (c) 122      (d) 125
15. Amy has three bags of candies with the same amount in each bag. She randomly takes a total of ten candies from her bags and gives them to her friends. She now has a total of 32 candies altogether. How many candies were in each bag to start with?  
(a) 12      (b) 14      (c) 16      (d) 18

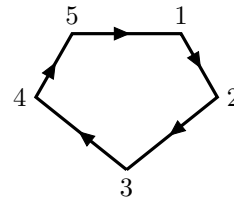
**PART C:** Each correct answer is worth **8 points**.

16. A straight line  $AD$  is divided into three parts as shown in the picture.

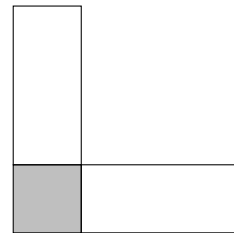


If  $AD = 90\text{cm}$ ,  $AC = 55\text{cm}$ , and  $BD = 40\text{cm}$ , what is the length of  $BC$ ?

- (a) 4cm      (b) 5cm      (c) 8cm      (d) 9cm
17. A 24 hour digital clock shows the time 12:12. What is the least amount of time it would take for the clock to show the same four digits but in reverse order (i.e. 21:21)?  
(a) 9 hrs, 9 min      (b) 10 hrs, 10 min  
(c) 9 hrs, 10 min      (d) 10 hrs, 9 min
18. A frog jumps around a circle of five rocks in a clockwise direction, as shown below. For example, if the frog starts at rock 1 and jumps 7 times, it will end up on rock 3. If the frog starts at rock 1 and jumps 48 times, where does it end up?



- (a) Rock 1   (b) Rock 3   (c) Rock 5   (d) Rock 4
19. Mandy drew 10 triangles on Monday, and each day she draws 2 triangles more than what she drew on the previous day. How many triangles has she drawn by the end of Saturday?  
(a) 60      (b) 70      (c) 80      (d) 90
20. Two  $10\text{cm}$  by  $3\text{cm}$  rectangles are put together to form an L-shaped figure as shown. What is the area of the unshaded region?



- (a)  $9\text{cm}^2$    (b)  $30\text{cm}^2$    (c)  $42\text{cm}^2$    (d)  $60\text{cm}^2$