



Special Edition
Calgary Elementary School
Mathematics Contest
 April 21, 2021

LEVEL-2 CONTEST

Name: ANSWER KEY

MARKERS' USE ONLY	
Part A <u>10</u> × 5	50
Part B <u>5</u> × 6	30
Part C <u>5</u> × 8	40
Total	120

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. $333 + 333 + 333 + 333 + 333 + 333 = 666 \times ?$
 (a) 1 (b) 2 (c) 3 (d) 4

2. Which of the following fractions is the largest?
 (a) $\frac{555}{666}$ (b) $\frac{444}{555}$ (c) $\frac{333}{444}$ (d) $\frac{222}{333}$

3. A rectangle has a length of 8cm and area of 40cm^2 . What is the perimeter of the rectangle?
 (a) 5cm (b) 13cm (c) 26cm (d) 40cm

4. In an airplane the rows are numbered 1 to 25, except there is no row 13. All rows except row 15 have six seats. Row 15 has four seats. What is the total number of passenger seats?
 (a) 132 (b) 140 (c) 142 (d) 148

5. $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} = ?$
 (a) $\frac{3}{4}$ (b) $\frac{3}{8}$ (c) $\frac{5}{8}$ (d) $\frac{7}{8}$

6. It costs \$56 to cut a piece of wood into 8 parts. How much does it cost to cut it into 11 parts?
 (a) \$77 (b) \$78 (c) \$79 (d) \$80

7. Joseph writes all the numbers from 25 to 125 (including 25 and 125). How many times does he write the digit 2?
 (a) 20 (b) 21 (c) 22 (d) 23

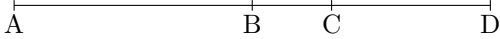
8. Liu is younger than Chau by two years and 2 days. Liu was born on April 21, 2013. When was Chau born?
 (a) April 23, 2015 (b) April 19, 2015
 (c) April 19, 2011 (d) April 23, 2011

9. 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

10. The area of a rectangle is 30cm^2 . If the length is doubled and the width is tripled, what is the area of the new rectangle?
 (a) 60cm^2 (b) 90cm^2 (c) 150cm^2 (d) 180cm^2

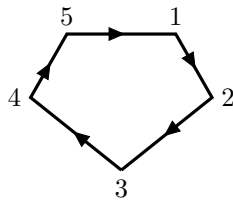
PART B: Each correct answer is worth **6 points**.

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

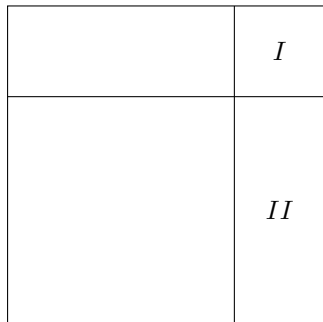


If $AD = 90\text{cm}$, $AC = 55\text{cm}$, and $BD = 40\text{cm}$, what is the length of BC ?

- (a) 4cm (b) 5cm (c) 8cm (d) 9cm
12. A container filled completely with rice weighs 500g. The container half-filled with rice weighs 300g. How much does the empty container weigh?
- (a) 100g (b) 150g (c) 200g (d) 250g
13. 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 78 times, where does it end up?



- (a) Rock 1 (b) Rock 3 (c) Rock 5 (d) Rock 4
14. A big square is divided into four pieces as shown. The perimeter of square I is 8cm and the perimeter of rectangle II is 14cm. What is the area of the big square?



- (a) 64cm^2 (b) 49cm^2 (c) 36cm^2 (d) 25cm^2
15. A 24 hour digital clock shows the time 12:40. 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. 04:21)?
- (a) 15 hrs, 10 min (b) 13 hrs, 40 min
(c) 14 hrs, 21 min (d) 15 hrs, 41 min

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

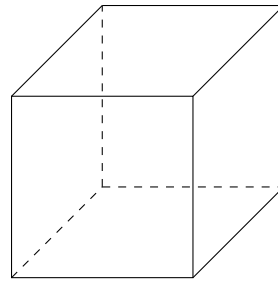
16. Mandy drew 8 triangles on Monday, and each day she draws 3 triangles more than what she drew on the previous day. How many triangles has she drawn by the end of Friday?

(a) 60 (b) 65 (c) 70 (d) 75

17. Ramses and Nubia received some apples and pears totalling 25 in number. Nubia ate one apple and three pears while Ramses ate three apples and two pears. After this, the number of apples left equaled the number of pears left. How many apples did they receive at the start?

(a) 13 (b) 12 (c) 11 (d) 10

18. An ant starts at one vertex (corner) of the cube shown below. The ant can only crawl along the edges of the cube, and each edge has length 1 unit. What is the shortest distance that the ant must crawl if it wants to visit each vertex at least once?



(a) 9 units (b) 8 units (c) 7 units (d) 6 units

19. Zhou uses the following rules when he orders dinner:

- If he orders dumplings then he has tea or water.
- If he orders wonton soup then he has pop.
- If he has tea or water, then he has chicken fried rice.
- If he has chicken fried rice then he has ice cream.

Which of the following is a possible choice of dinner for Zhou?

- (a) dumplings, pop, chicken fried rice, ice cream
(b) wonton soup, pop, chicken fried rice, pudding
 (c) dumplings, water, Peking duck, ice cream
(d) wonton soup, tea, chicken fried rice, ice cream

20. Cleopatra can build a table in 11 days. Anthony can do it in 22 days, and Julius takes 33 days. If the three work together, how many days will it take them to build a table?

(a) 4 days (b) 5 days (c) 6 days (d) 7 days