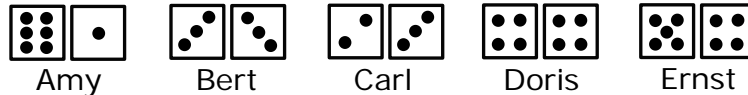# Canadian Math Kangaroo Contest

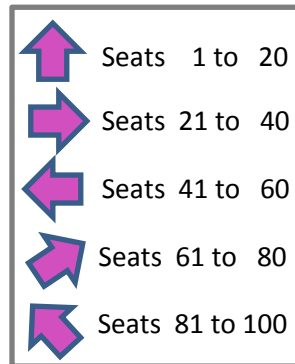## Part A: Each correct answer is worth 3 points

1. Amy, Bert, Carl, Doris and Ernst each rolled two dice and added the number of dots.

   Amy   Bert   Carl   Doris   Ernst

   Who rolled the largest total?

   (A) Amy   (B) Bert   (C) Carl   (D) Doris   (E) Ernst

2. Peter is guessing Paul's password. Peter knows that Paul used only digits for the last three places and that it has at most three capital letters. Which of the following choices could be Paul's password?

   (A) PAUL123   (B) Pa1u2L3   (C) LUap4321   (D) Paulin3   (E) 123PAUL

3. George and his father go to the circus. Their seat numbers are 71 and 72. The sign below shows where the seats are.
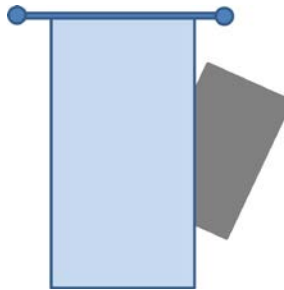

   Which way should they go?

   (A)   (B)   (C)   (D)   (E)

4. Richard dries grapes to obtain raisins. He gets 1 kilogram of raisins out of 4 kilograms of grapes. How many kilograms of grapes will he need in order to obtain 4 kilograms of raisins?

   (A) 12 kg   (B) 16 kg   (C) 20 kg   (D) 25 kg   (E) 50 kg

5.	What does Pipo see when he looks at himself in the mirror?

(A) 	(B) 	(C) 	(D) 	(E)

6.	A rectangle is partly hidden behind a curtain. What is the shape of the hidden part?

(A) A triangle	(B) A square	(C) A hexagon
(D) A circle	(E) A rectangle

7.	Anna shared her apples among herself and five friends. If everyone got half an apple, how many apples did she share?

(A) 2 and a half	(B) 3	(C) 4	(D) 5	(E) 6
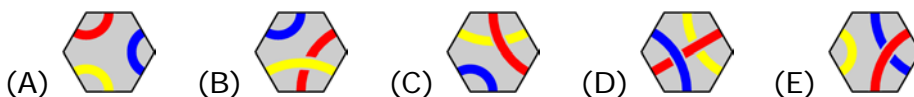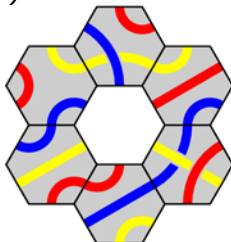
8.	Which of the following is true about this picture?

(A) There are as many circles as squares.
(B) There are fewer circles than triangles.
(C) There are twice as many circles as triangles.
(D) There are more squares than triangles.
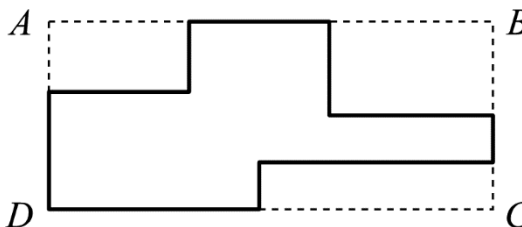(E) There are two triangles more than circles.

Part B: Each correct answer is worth 4 points

9. Which tile fits in the middle such that lines of the same colour are joined together? (Turning the middle tile is allowed.)
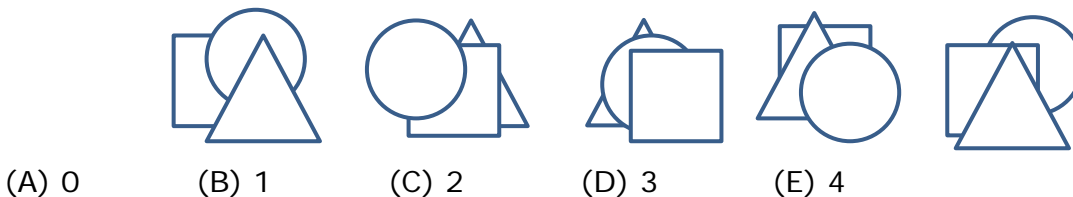

(A)   (B)   (C)   (D)   (E)

10. The sum of the digits of the number 2016 is equal to 9: 2 + 0 + 1 + 6 = 9. What is the next number that is greater than 2016 with the sum of its digits equal to 9?

(A) 2007   (B) 2025   (C) 2034   (D) 2108   (E) 2134

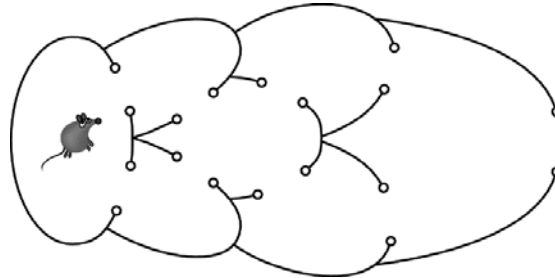11. The perimeter of the rectangle ABCD is 30 cm. Lisa cut off three rectangles as shown.

She found that the sum of the three perimeters is equal to 20 cm. What is the perimeter of the figure obtained after the cutting?

(A) 50 cm   (B) 40 cm   (C) 30 cm   (D) 10 cm   (E) impossible to determine

12. Five children had each a paper square, a paper triangle and a paper circle. Every child put their own papers in a pile, as shown in the pictures. How many children put the triangle after the square?
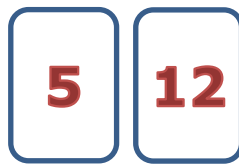

(A) 0   (B) 1   (C) 2   (D) 3   (E) 4

13.   The mouse wants to escape from the maze.

How many different paths can the mouse take without passing through the same opening more than once?

(A) 2   (B) 4   (C) 5   (D) 6   (E) 7

14.   Zoe has two cards with numbers on both sides of the cards – four numbers in total. The sum of the four numbers equals 32; the sum of the two numbers on the first card is equal to the sum of the two numbers on the second card. What are the hidden numbers?

(A) 8 and 7   (B) 8 and 6   (C) 11 and 4   (D) 9 and 6   (E) 10 and 5

15.   A farmer has the same number of chickens, sheep and goats. Together all these animals have 180 legs. How many goats live on this farm?
(A) 15   (B) 16   (C) 18   (D) 21   (E) 60

16.   Linda has started to write some numbers in the table below. She decides that each row and each column will contain the numbers 1, 2 and 3 only once.
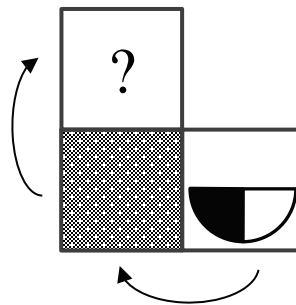

What is the sum of the numbers she writes in squares A and B?

(A) 2   (B) 3   (C) 4   (D) 5   (E) 6
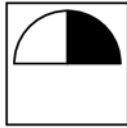
Part C: Each correct answer is worth 5 points

17.   My dogs have 18 more legs than noses. How many dogs do I have?

(A) 4   (B) 5   (C) 6   (D) 8   (E) 9

18.   Rachel added seven numbers together and got a sum of 2016. She later found out she had made a mistake by using the number 201 instead of 102. What sum should she have gotten instead of 2016?

(A) 1815   (B) 1914   (C) 1917   (D) 2115   (E) 2118

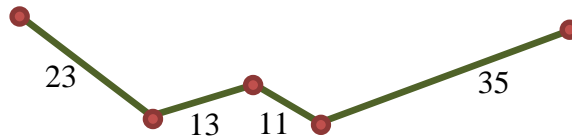19.   Helena turns the card over about its left-hand edge and then about its top edge, as shown below.
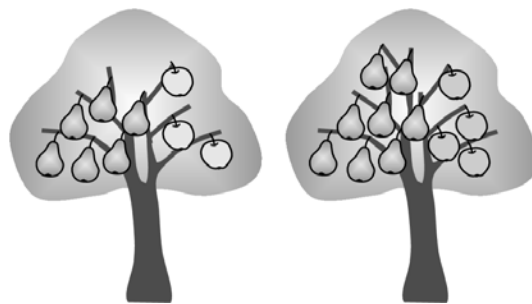

What does Helena see?

(A)   (B)   (C)   (D)   (E)

20.   Tim, Tom and Jim are triplets (three brothers born on the same day). Their brother Paul is exactly 3 years older. Which of the following numbers could be the sum of the ages of the four brothers? (All ages are rounded to a whole year).

(A) 25   (B) 27   (C) 29   (D) 30   (E) 60

21.   A group of 31 students went camping taking nine tents. Each tent shelters either three or five students. If all students were covered by a tent, at least how many of the tents housed five students each?

(A) 2   (B) 3   (C) 4   (D) 5   (E) 6

22. The picture below shows the roads between five connected towns. The numbers show the distances between the towns. It is 24 kilometres from Caramelshire to Nutyork. The distance between Vanillaton and Chocolateford is 10 km longer than the distance between Vanillaton and Candister. Nutyork is closer to Candister than it is to Chocolateford. How far is it from Candister to Chocolateford?

23   13   11   35

(A) 36   (B) 46   (C) 47   (D) 59   (E) 82

23. Magic trees grow in a magic garden. Each tree contains either 6 pears and 3 apples or 8 pears and 4 apples. There are 25 apples in the garden. How many pears are there in the garden?

(A) 35   (B) 40   (C) 45   (D) 50   (E) 56

24. Malte has built a bar of 27 bricks.

He breaks the bar into two bars such that one of them is twice the length of the other. Then he takes one of the new bars and breaks it the same way. He continues in this way. Which of the following bars will he not be able to get?

(A) 2   (B) 4   (C) 6   (D) 8   (E) 10

International Contest-Game
Math Kangaroo Canada, 2016

Answer Key
Grade 3-4

1	A B C D **E**	**9**	A **B** C D E	**17**	A B **C** D E
2	A B **C** D E	**10**	A **B** C D E	**18**	A B **C** D E
3	A B C **D** E	**11**	A B **C** D E	**19**	A B C **D** E
4	A **B** C D E	**12**	A B C **D** E	**20**	A **B** C D E
5	**A** B C D E	**13**	A **B** C D E	**21**	**A** B C D E
6	**A** B C D E	**14**	A B **C** D E	**22**	A B C D **E**
7	A **B** C D E	**15**	A B **C** D E	**23**	A B C **D** E
8	A B **C** D E	**16**	A B **C** D E	**24**	A B C D **E**