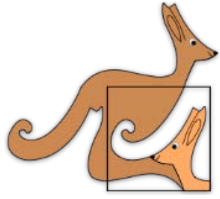


# For training purposes only!



## INTERNATIONAL CONTEST-GAME MATH KANGAROO CANADA, 2018

### INSTRUCTIONS GRADE 1-2



1. You have 45 minutes to solve 18 multiple choice problems. For each problem, circle only one of the proposed five choices. If you circle more than one choice, your response will be marked as wrong.
2. Record your answers in the response form. Remember that this is the only sheet that is marked, so make sure you have all your answers transferred to the response form before giving it back to the contest supervisor.
3. The problems are arranged in three groups. A correct answer of the first 6 problems is worth 3 points. A correct answer of the problems 7-12 is worth 4 points. A correct answer of the problems 13-18 is worth 5 points. For each incorrect answer, one point is deducted from your score. Each unanswered question is worth 0 points. To avoid negative scores, you start from 18 points. The maximum score possible is 90.
4. The use of external material or aid of any kind is **not permitted**.
5. The figures *are not* drawn to scale. They should be used only for illustration purposes.
6. Remember, you have about 2 to 3 minutes for each problem; hence, if a problem appears to be too difficult, save it for later and move on to another problem.
7. At the end of the allotted time, please **give the response form to the contest supervisor**.
8. Do not forget to pick up your Certificate of Participation on your way out!

**Good luck!**

*Canadian Math Kangaroo Contest team*



[www.mathkangaroocanada.com](http://www.mathkangaroocanada.com)

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## Canadian Math Kangaroo Contest

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

1. Which shape **cannot** be formed using  and  ?

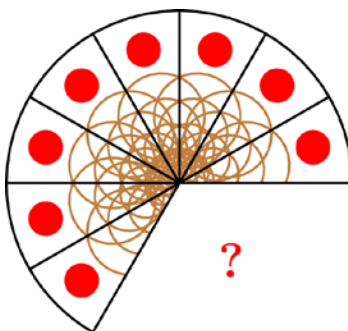


2. At least how many 4-ray stars like this  are glued together to

make this shape  ?

- (A) 5      (B) 6      (C) 7      (D) 8      (E) 9

3. This pizza was divided into equal slices.



How many slices are missing?

- (A) 1      (B) 2      (C) 3      (D) 4      (E) 5

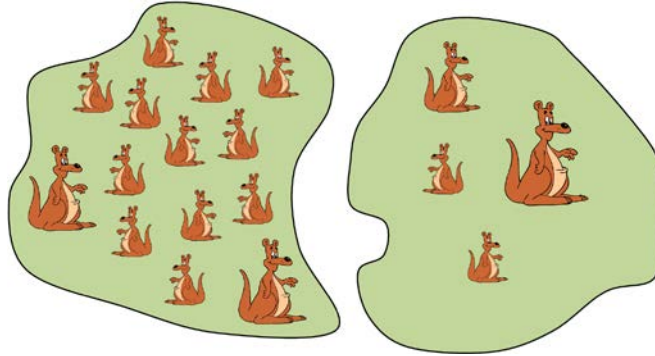
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Grade 1-2

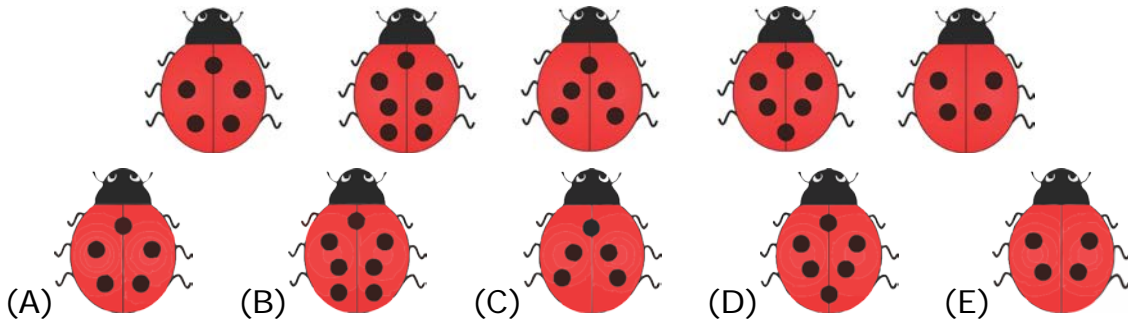
2018

4. How many kangaroos must be moved from one park to the other in order to get the same number of kangaroos in each park?

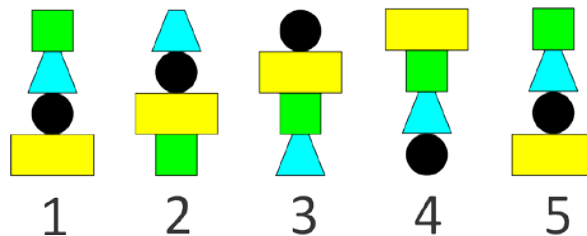


- (A) 4      (B) 5      (C) 6      (D) 8      (E) 9

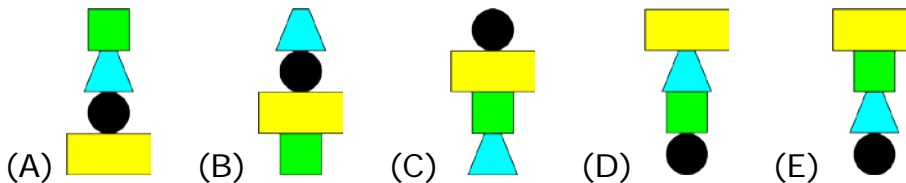
5. Which of these ladybugs has to fly away so that the rest of them have 20 dots in total?



6. Emilie builds towers in the following pattern



Which one will be the tower number 6?



# For training purposes only!



Grade 1-2

2018

## Part B: Each correct answer is worth 4 points

7. If  $\diamond + \diamond = 4$  and  $\Delta + \Delta + \Delta = 9$ , what is the value of  $\diamond + \Delta = ?$

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

8. Lisa has 4 pieces

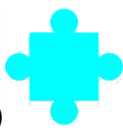






, but she only needs 3 for

completing her puzzle frame



. Which piece will be left over?

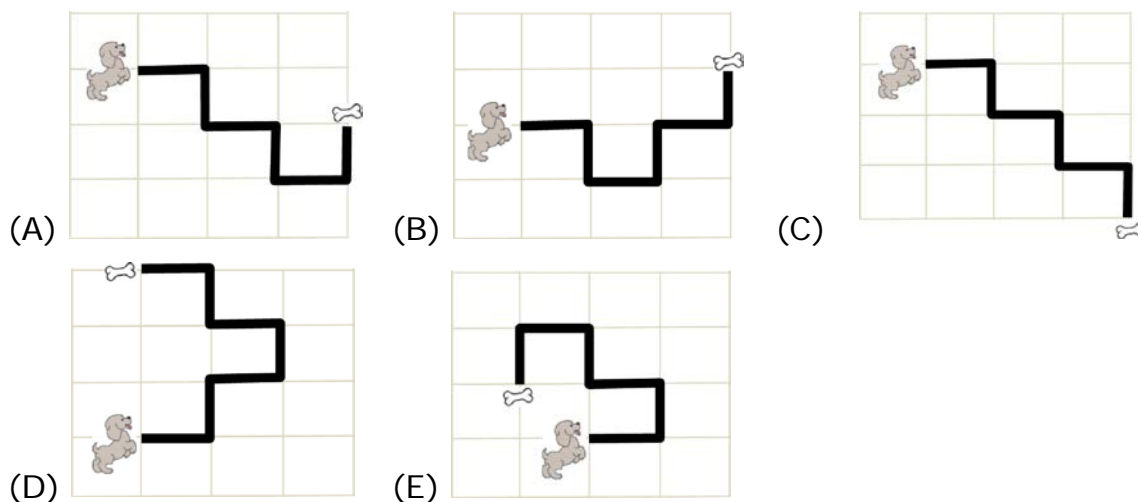
(A)  (B)  (C)  (D)  (E)  or 

9. How many right hands are in this picture?



(A) 3      (B) 4      (C) 5      (D) 6      (E) 7

10. The dog went to its food following a path. In total it made 3 right turns and 2 left turns. Which path did the dog follow?



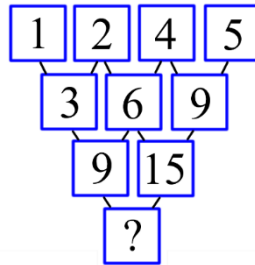
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Grade 1-2

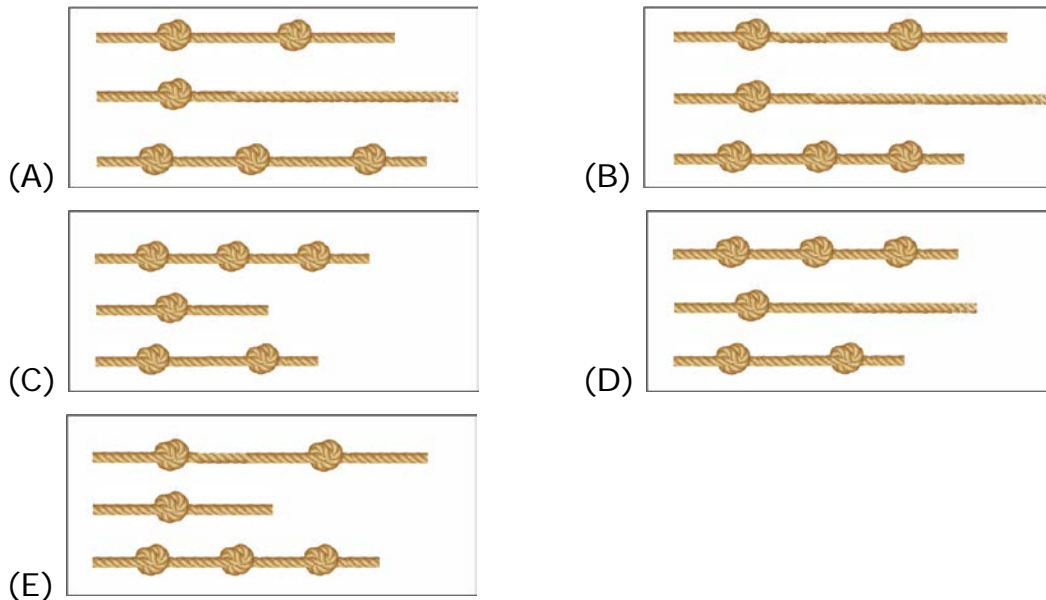
2018

11. What number is in the box marked "?" ?



- (A) 6      (B) 13      (C) 24      (D) 29      (E) Some other number

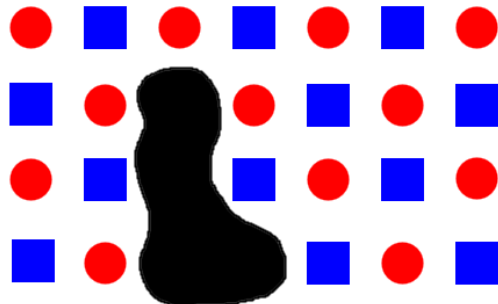
12. Charles cut a rope in three equal pieces and then made some equal knots with them. Which figure correctly shows the three pieces with the knots?



## Part C: Each correct answer is worth 5 points

13. How many circles and how many squares are covered by the blot in the picture?

- (A) 1 circle and 3 squares  
(B) 2 circles and 1 square  
(C) 3 circles and 1 square  
(D) 1 circles and 2 squares  
(E) 2 circles and 2 squares



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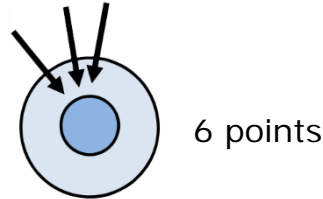


Grade 1-2

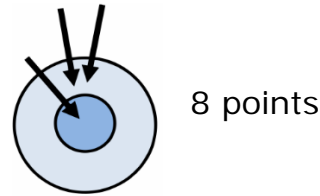
2018

14. Diana shoots three arrows at a target.

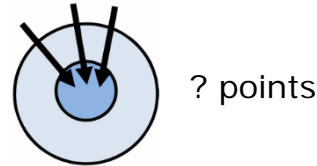
On her first try, she gets 6 points and the arrows land like this:



On her second try, she gets 8 points and the arrows land like this:



On her third try, the arrows land like this:

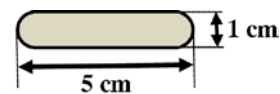


How many points will she get the third time?

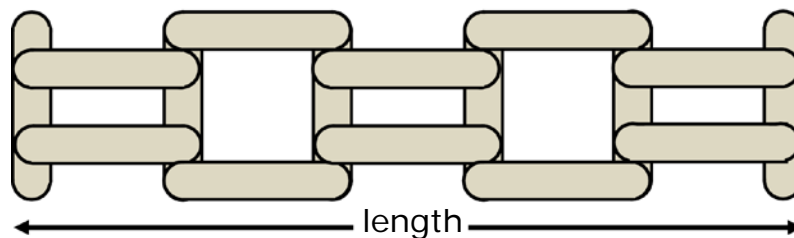
15. How many different numbers greater than 10 and smaller than 25 with distinct digits can we make by using any two of the digits 2, 0, 1, and 8?

(A) 4      (B) 5      (C) 6      (D) 7      (E) 8

16. Mark had some sticks of length 5 cm and width 1 cm



With the sticks he constructed the fence below.



What is the length of the fence?

(A) 20 cm   (B) 21 cm   (C) 22 cm   (D) 23 cm   (E) 25 cm

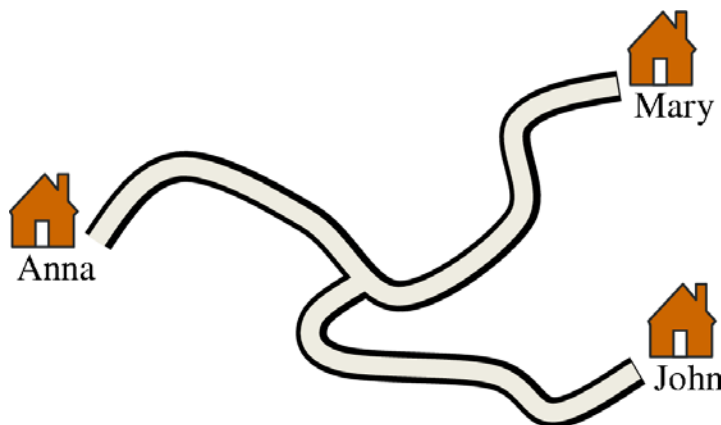
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Grade 1-2

2018

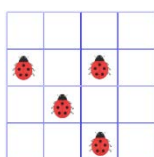
17. The road from Anna's house to Mary's house is 16 km long.  
The road from Mary's house to John's house is 20 km long.  
The road from the crossroad to Mary's house is 9 km long.



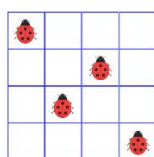
How long is the road from Anna's house to John's house?

- (A) 7 km (B) 9 km (C) 11 km (D) 16 km (E) 18 km

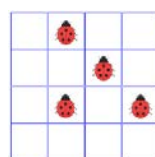
18. There are four ladybugs on a  $4 \times 4$  board. Two are asleep and do not move. The other two ladybugs move one square every minute (up, down, left, or right). Here are pictures of the board for the first four minutes:



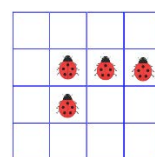
Minute 1



Minute 2

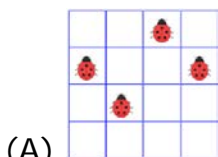


Minute 3

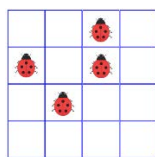


Minute 4

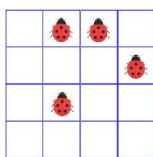
Which of these is a picture of the fifth minute (Minute 5)?



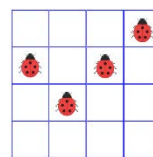
(A)



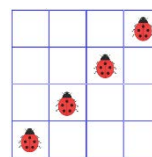
(B)



(C)



(D)



(E)