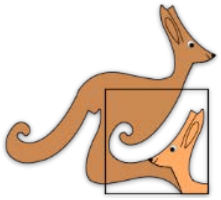
For training purposes only!



INTERNATIONAL CONTEST-GAME
MATH KANGAROO
CANADA, 2019

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

Canadian Math Kangaroo Contest

Part A: Each correct answer is worth 3 points

1. Which cloud contains only numbers less than 7?

(A) 

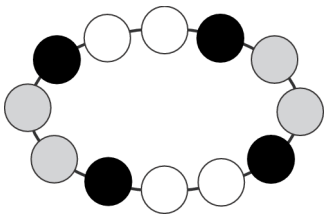
(B) 

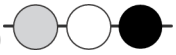
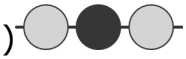
(C) 

(D) 

(E) 

2. Which figure shows a part of this necklace?



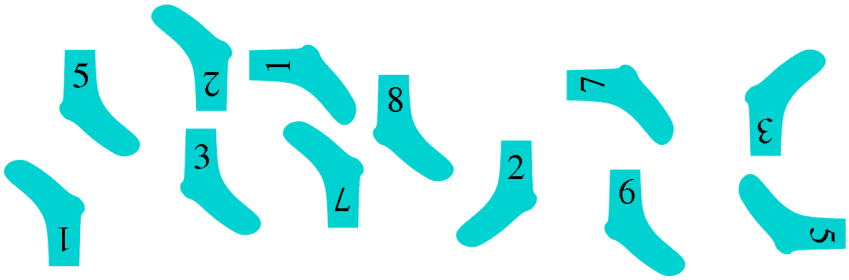
(A)  (B)  (C)  (D)  (E) 

3. There are 12 children in a line. Lucy is the 7th from the front and Kim is the 2nd from the back. How many children are there between Lucy and Kim?

FRONT 

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

4. Jorge pairs his socks so that the numbers match. How many pairs can he make?

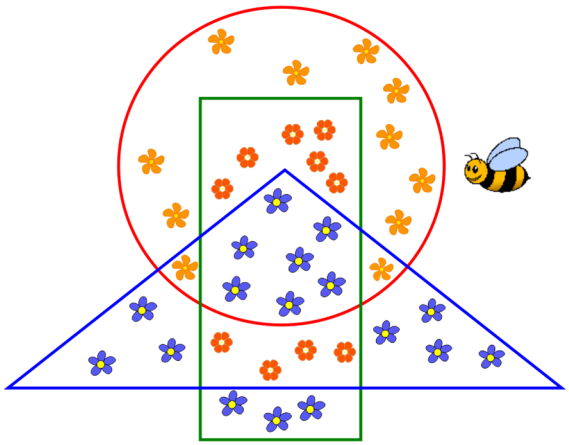


(A) 3 (B) 4 (C) 5 (D) 6 (E) 8

5. If tomorrow is Tuesday, what day was yesterday?

(A) Sunday (B) Thursday (C) Wednesday (D) Monday (E) Saturday

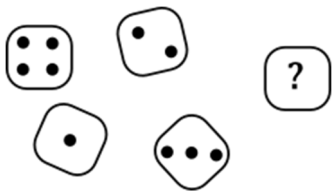
6. Maya Bee was gathering pollen from all of the flowers that lie inside the rectangle, but are outside the triangle. From how many flowers did she collect pollen?



(A) 6 (B) 9 (C) 13 (D) 17 (E) 20

Part B: Each correct answer is worth 4 points

7. Jutta throws five regular dice. The total number of dots is 15. Four dice are as shown on the right.



How many dots must there be on the fifth die?

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

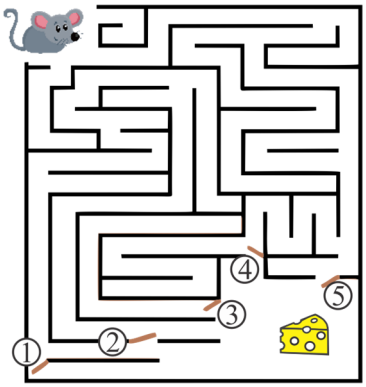
8. Clara wrote a hidden message to her friend by replacing each letter, as shown:

R	I	N	G		K	A	R	L	O
*	@	#	$		!	%	*	?	+

How would RANGO be written?

(A) *#%$+ (B) *%#$+ (C) *%$#+ (D) *@#$+ (E) *+$#+

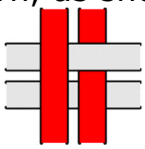
9. You have to close two of the five gates so that the mouse cannot reach the cheese.



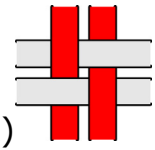
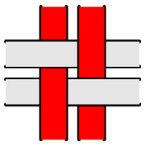
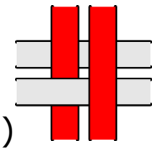
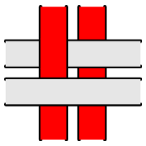
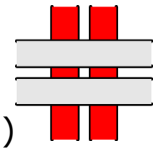
Which gates should you close?

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

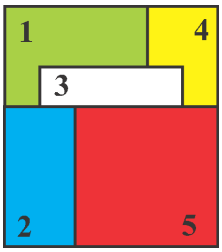
10. Four strips are woven into a pattern, as shown.



What do you see when you look at it from the other side?

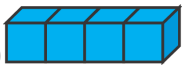
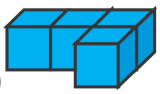
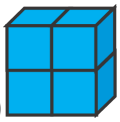
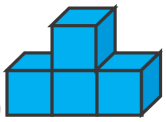
(A)  (B)  (C)  (D)  (E) 

11. Five square cards are stacked on a table, as shown on the right. The cards are removed one by one from the top of the stack. In what order are the cards removed?



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

12. Each of the shapes shown is made by gluing together four cubes of the same size. The shapes are to be painted. Which shape has the smallest area to be painted?

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

<u>Part C: Each correct answer is worth 5 points</u>

13. On a farm, there are only sheep and cows. The number of sheep is 8 more than the number of cows. The number of cows is half the number of sheep. How many animals are on the farm?

(A) 16 (B) 18 (C) 20 (D) 24 (E) 28

14. Here are nine squares:  . First, Andrea replaced all the black squares with white ones. Next, Bob replaced all the grey squares with black ones. Finally, Chris replaced all the white squares with grey ones. What did they get at the end?

(A) 

(B) 

(C) 

(D) 

(E) 

15. Peter chose a square of four cells in the table so that the sum of the four numbers inside the square is greater than 63. Which of the following numbers must be in the chosen square?

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

(A) 14 (B) 15 (C) 17 (D) 18 (E) 20

16. There were sparrows on two trees. At first, seven sparrows flew from Tree 1 to Tree 2. Then, four sparrows flew from Tree 2 to Tree 1. After that, there were five sparrows on each tree. How many sparrows were sitting on Tree 1 to begin with?

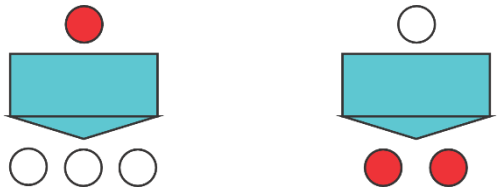
Tree 1 Tree 2

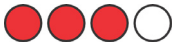
(A) 7 (B) 8 (C) 9 (D) 10 (E) 11

17. The age difference between Adam and his older sister Lucy is 7 years. Adam is 8 years younger than Monica. Which of the following answers shows the three children, from the oldest to the youngest?

(A) Adam, Lucy, Monica (B) Lucy, Monica, Adam (C) Monica, Adam, Lucy
(D) Adam, Monica, Lucy (E) Monica, Lucy, Adam

18. Amalia's machine converts one red token into three white tokens and one white token into two red tokens.



Amalia has three red tokens and one white token:  .

She uses the machine three times to convert three of her tokens.

What is the smallest number of tokens she can end up with?

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