

Name: _____

Campus: _____

Grade: _____



Rules and Regulations L1 Canadian Finals



Releasing the Genius.

(Please read these rules and regulations carefully)

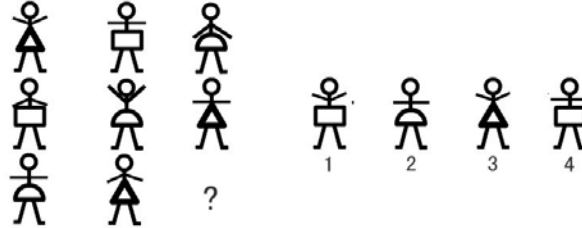
1. Please fill in your FULL name, grade, and campus clearly on the top of this page.
2. Do not open the question booklet until you are told to do so. You may only use a pencil when answering the questions.
3. No calculators or unauthorised electronic devices (including mobile phones) are allowed during the contest.
4. Strict silence must be observed at all times in the examination hall and please be reminded that you MAY NOT leave your seat without permission.
5. If you have any request or enquiry, please raise your hand and wait for an invigilator.
6. Each question in the contest has been verified by experienced trainers, thus no further explanation will be given.
7. The time allowed for the paper is 45 minutes. You must stop writing when you are told to do so.
8. You MUST fill in your answers on the contest paper provided, part marks will be given when appropriate.

Scoring System

1. Questions 1-4 are worth 5 points each, and questions 5 - 10 are worth 10 marks each, with a total of 80 marks available.
2. The organizer reserves the right to call for a re-sit in the event of malpractice and to differentiate between those outstanding students.
3. Contestants who are disqualified from the contest will not be awarded any certificates and will be forfeited any right to re-sit this year.

Multiple Choice Questions (5 points each)

1. The picture below shows a square formation that will be formed by 9 people. However, one of them is not present. Please choose from the options given to the right of the square formation, the person who you think is the most suitable to be placed in the position of the question mark ?



- A.1 B.2 C.3 D.4

2. Mary spent \$2, \$4, \$6 and \$8 of her pocket money on the 1st, 3rd, 5th and 7th day in a certain month respectively. Mary's mum also gave Mary \$1, \$3, \$5, and \$7 for her pocket money on the 2nd, 4th, 6th and 8th day of that certain month respectively. When Mary counted her money on the 8th day of that month, she still has \$10 left. How much did Mary have in the beginning?

- A.10 **B.14** C.16 D.20

3. In Pets Land, a group of cats and a group of dogs are having a tug of war. Although there are 8 more cats than dogs, the tug of war ends in a draw. If the strength of 1 dog is equal to the strength of 2 cats, how many cats are there?

- A.1 B.2 C.8 **D.16**

4. A printer can only print a single digit at a time. If this printer is used to print the page numbers of a book, and it prints a total of 222 digits, what is the page number of the last page of the book?

- A.222 B.111 **C.110** D.101

Long Answer Questions (10 marks each)

5. (10 marks)

One morning at 8am, Jake opened the window and said, "It is going to rain heavily!"



Neytiri replied, "It's ok, the sun will rise in another 60 hours."



Do you think what Neytiri said is correct? Please explain your answer.

24 hours a day, 24 hours = 24 hours + 24 hours + 12 hours. Nami beauty window is 8 o'clock in the morning, and then two 24 hours is still 8 am, another 12 hours, to 8 pm, 8 pm is not out of the sun. So satisfied that the United States is not right.

6. Spring is travelling with her family to Korea, China and Thailand. The currencies of Korea, China and Thailand are the Korean Won, Chinese Renminbi and Thai Baht respectively. 1000 Korean Won can be exchanged for 6 Renminbi and 1 Renminbi can be exchanged for 5 Thai Baht. Spring wanted to buy a scent bag in Thailand for 600 Thai Baht. How much does that cost in Korean Won?

$$600 \div 5 = 120$$

$$120 \text{ baht} = 120 \text{ yuan}$$

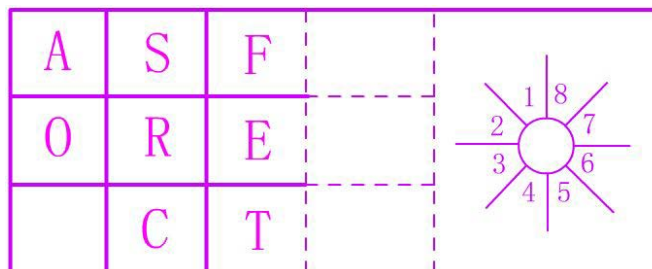
$$120 \div 6 = 20$$

$$20 \times 1000 = 20000$$

$$120 \text{ yuan} = 20000 \text{ won}$$



7. The diagram below shows the code used for the password of a treasure box. Please use the example given to decode the password. **CAFE 416**



Example: = ST 11, Password: ^v<

8. August and Betty are playing “connect-the-numbers” on a 16-square grid, in which they trace out a path from 1 to 16 (Fig. 1). Only moves between adjacent squares are allowed (no jumping over squares), in any direction including the diagonals. Fill in Fig. 2 on the right with the rest of the numbers from 1 to 16 so that such a path may also be traced on it.

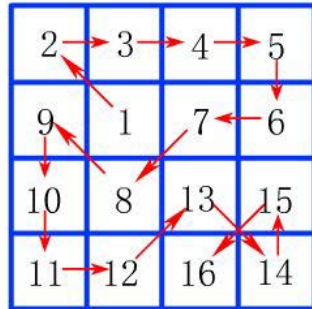


Fig. 1

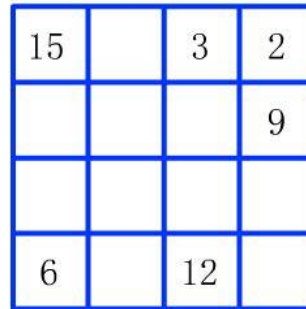


Fig. 2

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

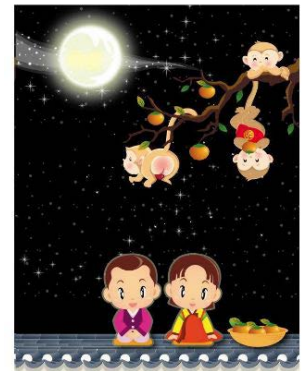
9. A certain type of dance is made up of the following sequence only:
 Tap left foot, tap right foot, move 2 steps forward, move 3 steps backward, then Tap left foot, tap right foot, move 3 steps forward.
 The above sequence is repeated throughout the dance. If every tap and every step is made to one beat of the music, how many beats must be made for a dancer to move 50 steps forward from her original position?

Step 1 + 1 + 2 + 3 + 1 + 1 + 3 = 12 (beat), into the 2 step. 24 hours after a total of 48 steps, 25th section of the first 4 beat and then into the 2 step, so to reach 50 steps when a total of $12 \times 24 + 4 = 292$ (beat).



10. One day Julie's mum brought 3 boxes of mooncakes home. The positions of the 8 mooncakes in each box is shown in Fig. 1, 2 and 3. Please tick the mooncakes eaten by Julie in Fig. 1, 2 and 3 based on the scenarios given:

1. Fig. 1: Julie ate 4 mooncakes, and there are still 2 mooncakes left on each side of the box
2. Fig. 2: Julie ate 3 mooncakes, and there are still 2 mooncakes left on each side of the box
3. Fig. 3: Julie ate 2 mooncakes, and there are still 2 mooncakes left on each side of the box



•	✓	•
✓		✓
•	✓	•

Fig. 1

•	✓	•
✓		•
•	•	✓

Fig. 2

✓	•	•
•		•
•	•	✓

Fig. 3