



奧冠教育中心

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香港國際數學競賽初賽 2019 (香港賽區)

HONG KONG INTERNATIONAL
MATHEMATICAL OLYMPIAD

HEAT ROUND 2019 (HONG KONG REGION)

小學一年級 Primary 1

時限: 60 分鐘

Time allowed: 60 minutes

試題

Question Paper

考生須知:

Instructions to Contestants:

1. 本卷包括 試題 乙份, 試題紙不可取走。
Each contestant should have ONE Question-Answer Book which CANNOT be taken away.
2. 本卷共 5 個範疇, 每範疇有 4 題, 共 20 題, 每題 3 分, 總分 60 分, 答錯不扣分。
There are 5 exam areas and 4 questions in each exam area. There are a total of 20 questions in this Question-Answer Book. Each carries 3 marks. Total score is 60 marks. No points are deducted for incorrect answers.
3. 請將答案寫在 **答題紙** 上。
All answers should be written on ANSWER SHEET.
4. 比賽期間, 不得使用計算工具。
NO calculators can be used during the contest.
5. 本卷中所有圖形不一定依比例繪成。
All figures in the paper are not necessarily drawn to scale.
6. 比賽完畢時, 本試題會被收回。
This Question-Answer Book will be collected at the end of the contest.

請以最簡形式填寫答案, 若計算結果是分數, 請確保為真分數或帶分數, 或將計算結果寫成小數。錯誤單位將不給予任何分數。
Write down the answer in the simplest form. If the calculation result is a fraction, please write down the answer as a proper or mixed fraction, decimal figure is also accepted. Marks will NOT be given for incorrect unit.

請將答案寫在 答題紙 上。

All answers should be written on the ANSWER SHEET.

本試題不可取走。

THIS Question-Answer Book CANNOT BE TAKEN AWAY.

未得監考官同意，切勿翻閱試題，否則參賽者將有可能被取消資格。

DO NOT turn over this Question-Answer Book without approval of the examiner.

Otherwise, contestant may be DISQUALIFIED.

請以最簡形式填寫答案，若計算結果是分數，請確保為真分數或帶分數，或將計算結果寫成小數。錯誤單位將不給予任何分數。
Write down the answer in the simplest form. If the calculation result is a fraction, please write down the answer as a proper or mixed fraction, decimal figure is also accepted. Marks will NOT be given for incorrect unit.

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填空題 (第 1 至 20 題) (每題 3 分, 答錯及空題不扣分)

Open-Ended Questions (1st ~20th) (3 points for correct answer, no penalty point for wrong answer)

Logical Thinking

邏輯思維

1. If tomorrow will be Saturday, which day of the week was 5 days before?
明天是星期六, 問五天前是星期幾?
2. Peter's father has 2 daughters and Peter has 4 brother(s) and sister(s). How many son(s) does Peter's father have?
彼德的爸爸有 2 個女兒, 而彼德有 4 個兄弟姐妹, 問爸爸有多少個兒子?
3. Alice needs 3 minutes to travel from home to canteen. She can bring at most 3 takeaways at the same time. How many minute(s) does she need to bring 5 takeaways starting from canteen?
愛麗絲由家到食堂需要 3 分鐘路程, 她可以同時帶最多 3 個外賣, 問她由食堂出發帶 5 個外賣需要多少分鐘?
4. According to the pattern shown below, what is the number in the blank?
按以下規律, 求在橫線上的數字。

5 、 10 、 20 、 35 、 55 、 80 、 、

Arithmetic

算術

5. Find the value of $6+8+12+3+11+5$.
求 $6+8+12+3+11+5$ 的值。
6. Find the value of $15-18+25$.
求 $15-18+25$ 的值。
7. Find the value of $1-2+3-4+5-6+7-8+9$.
求 $1-2+3-4+5-6+7-8+9$ 的值。
8. What is the number that should be filled in the blank if the equation below is correct?
在以下算式填上甚麼數字會使算式正確?

$$28 - \underline{\quad\quad} = 11$$

請以最簡形式填寫答案, 若計算結果是分數, 請確保為真分數或帶分數, 或將計算結果寫成小數。錯誤單位將不給予任何分數。

Write down the answer in the simplest form. If the calculation result is a fraction, please write down the answer as a proper or mixed fraction, decimal figure is also accepted. Marks will NOT be given for incorrect unit.

請將答案寫在 答題紙 上。

All answers should be written on the ANSWER SHEET.

Number Theory

數論

9. Alice has 20 red pockets and Peter has 5 red pockets. How many red packet(s) does Peter have to ask Alice to give him to make Peter has 3 more red pockets than Alice?

愛麗絲有 20 個紅包，彼德有 5 個紅包。要使彼德比愛麗絲多 3 個紅包，彼德要問愛麗絲取多少個紅包？

10. Fill the lines with ‘+’ and ‘-’ to make the equation below correct. (Write down the complete equation in the answer sheet)

在橫線上填上加號或減號，使下列算式正確。(在答題紙上寫上完整算式)

$$4 \quad \underline{\quad} \quad 7 \quad \underline{\quad} \quad 9 \quad \underline{\quad} \quad 4 \quad = \quad 2$$

11. Fill the lines with ‘+’ and ‘-’ to make the equation below correct. (Write down the complete equation in the answer sheet)

在橫線上填上加號或減號，使下列算式正確。(在答題紙上寫上完整算式)

$$3 \quad \underline{\quad} \quad 8 \quad \underline{\quad} \quad 10 \quad \underline{\quad} \quad 4 \quad \underline{\quad} \quad 5 \quad = \quad 10$$

12. How many 2-digit odd number(s) that the ten digit is 3 is / are there?

問有多少個十位是 3 的兩位奇數 (單數) ？

請以最簡形式填寫答案，若計算結果是分數，請確保為真分數或帶分數，或將計算結果寫成小數。錯誤單位將不給予任何分數。

Write down the answer in the simplest form. If the calculation result is a fraction, please write down the answer as a proper or mixed fraction, decimal figure is also accepted. Marks will NOT be given for incorrect unit.

請將答案寫在 **答題紙** 上。

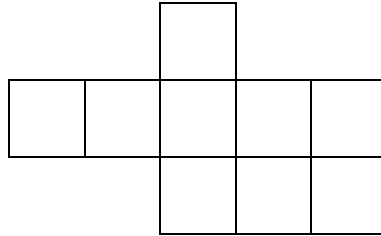
All answers should be written on the ANSWER SHEET.

Geometry

幾何

13. How many square(s) is / are there in the figure below?

請問下圖有多少個正方形?

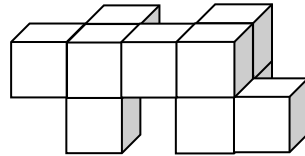


Question 13

第 13 題

14. At least how many cube(s) is / are there in the figure below?

下圖最少由多少個立方體組成?

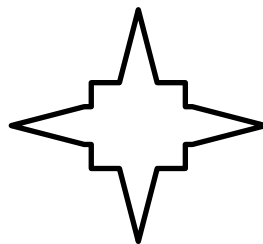


Question 14

第 14 題

15. How many side(s) is / are there in the polygon below?

下圖的多邊形有多少條邊?



Question 15

第 15 題

16. By observing the pattern, from left to right, what is the missing figure?

觀察規律，從左至右數，消失的圖形是什麼?



Question 16

第 16 題

請以最簡形式填寫答案，若計算結果是分數，請確保為真分數或帶分數，或將計算結果寫成小數。錯誤單位將不給予任何分數。
Write down the answer in the simplest form. If the calculation result is a fraction, please write down the answer as a proper or mixed fraction, decimal figure is also accepted. Marks will NOT be given for incorrect unit.

請將答案寫在 答題紙 上。

All answers should be written on the ANSWER SHEET.

Combinatorics

組合數學

17. Which number below is the greatest?
下列哪一個數的值最大?
20195418 、 20193481、 20189457 、 20196784
18. Choose 2 digits, without repetition, from 2, 7, 0 and 8 to form 2-digit numbers. How many different number(s) is / are there?
從 2、7、0、8 中選 2 個不可重複的數位組成兩位數。請問當中有多少個不同的數?
19. According to the following numbers, what is the difference between the number of even number(s) and odd number(s)?
求下列這些數中，有偶數（雙數）和奇數（單數）相差多少個?
2, 7, 11, 16, 19, 22, 26, 39
20. What is the largest 3-digit number by choosing 3 numbers from 2, 0, 1 and 9? (Each number can only be used once)
從 2、0、1 和 9 選取 3 個數字組成最大的三位數是多少？（每個數字只能用一次）

~ 全卷完 ~

~ End of Paper ~