



# 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)

### 小學二年級 Primary 2

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.

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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。  
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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 (1<sup>st</sup> ~20<sup>th</sup>) (3 points for correct answer, no penalty point for wrong answer)

Logical Thinking

邏輯思維

1. If the day before yesterday was Friday, which day of the week will 3 days later be?  
前天是星期五, 問 3 天後是星期幾?
2. 20 children form a column. There are 5 people in front of Alice. What is her position counting from behind?  
20 個小孩排成一列, 愛麗絲前面有 5 個人, 那麼她是後面數的第幾個?
3. 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、6、9、14、21、30、\_\_\_、....
4. Alice needs 3 minutes to travel from home to canteen. She can bring at most 3 takeaways at the same time. How many takeaway(s) can she at most bring in 15 minutes 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, 問她由食堂出發的話 15 分鐘最多能帶多少個外賣?

Arithmetic

算術

5. Find the value of  $4+9+14+19+24+29+6+11+16+21+26+31$ .  
求  $4+9+14+19+24+29+6+11+16+21+26+31$  的值。
6. Find the value of  $5\times 4+8\times 2+3\times 8-10\times 2$ .  
求  $5\times 4+8\times 2+3\times 8-10\times 2$  的值。
7. Find the value of  $23+34+42+24+32+43$ .  
求  $23+34+42+24+32+43$  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?  
 $\underline{\hspace{2cm}} \div 4 + 1 = 21$

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。  
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Number Theory

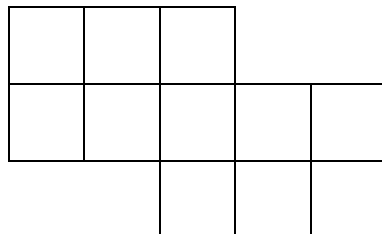
數論

9. Alice has 82 red pockets and Peter has 20 red pockets. How many red pocket(s) does Peter have to ask Alice to give him to make Peter has 22 more red pockets than Alice?  
愛麗絲有 82 個紅包，彼得有 20 個紅包。要使彼得比愛麗絲多 22 個紅包，彼得要問愛麗絲取多少個紅包？
10. 10 students have even number of scores of mathematics test in total. 5 children have odd number of scores and 4 children has even number of scores. Determine the number of scores of the remaining child is odd or even.  
10 名學生的數學考試成績總和為偶數，其中 5 名學生得到奇數分數，4 名學生得到偶數分數，問餘下學生的分數是偶數，還是奇數？
11. The numbers below follow the arithmetic sequence, what is the 16<sup>th</sup> number?  
根據以下的等差數列，問第 16 個數是甚麼？  
222、218、214、210、206、...
12. How many 3-digit number(s) having the tens digit that is smaller than 6 is / are there?  
有多少個三位數的十位數小於 6？

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. A prism has 18 edges, how many face(s) does this prism have?

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。

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請將答案寫在 答題紙 上。

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有一個柱體有 18 條邊，問這個柱體有多少個面？

15. By observing the pattern, what is the missing figure?

觀察規律，從左至右數，消失的圖形是什麼？

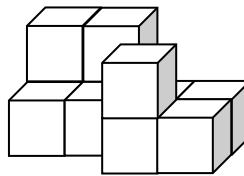


Question 15

第 15 題

16. At least how many square(s) can be seen if viewing the figure below from top?

如果從上邊俯視下圖的立體，最少可以看見多少個正方形？



Question 16

第 16 題

### Combinatorics

### 組合數學

17. After Alice gives 10 red pockets to Peter and takes 3 red pockets from Mary, they will have equal number of red pockets. How many red pocket(s) did Mary have more than Peter originally?

當愛麗絲把 10 個紅包送給彼德及拿了瑪麗 3 個紅包後，他們擁有的紅包數目便一樣。問原本瑪麗比彼德多多少個紅包？

18. What is the smallest 4-digit number by using 2, 4, 8 and 0 that is divisible by 8? (Each number can only be used once)

利用 2、4、8、0 組成的四位數，當中能被 8 整除的最小是多少？（每個數字只能用一次）

19. Pick 3 from 8 children to take part in interview. How many different combination(s) is / are there?

8 個小孩中選 3 個參加面試，有多少個不同可能性？

20. How many even number(s) is / are there in the following numbers from the 1<sup>st</sup> to the 33<sup>rd</sup>?

下面的數由第 1 個到第 33 個數之間，有多少個偶數？（偶數即是雙數）

1, 1, 2, 3, 5, 8, ...

~ 全卷完 ~

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。

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~ End of Paper ~

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。  
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