



奧冠教育中心

OLYMPIAD CHAMPION EDUCATION CENTRE

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世界國際數學競賽總決賽 2018

WORLD INTERNATIONAL MATHEMATICAL OLYMPIAD FINAL 2018

小學二年級 Primary 2

時限：120 分鐘

Time allowed: 120 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 6 題，共 30 題，每題 5 分，總分 150 分，答錯不扣分。
There are 5 exam areas and 6 questions in each exam area. There are a total of 30 questions in this Question-Answer Book. Each carries 5 marks. Total score is 150 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.

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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填空题 (第 1 至 30 題) (每題 5 分, 答錯及空題不扣分)

Open-Ended Questions (1st ~30th) (5 points for correct answer, no penalty point for wrong answer)

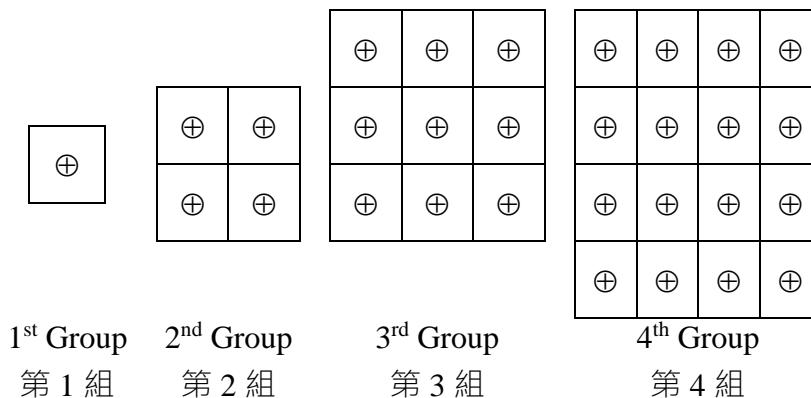
Logical Thinking

邏輯思維

1. If today is Saturday, which day of the week will 4 days later be?
今天是星期六, 問 8 天後是星期幾?
2. Father is 57 years old and mother is 40 years old. What is the difference between their ages this year?
爸爸今年 57 歲, 媽媽今年 40 歲, 他們今年相差多少歲?
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。

1 、 5 、 9 、 13 、 17 、 21 、 、

4. Class 2A has 36 students queuing up in a row. If there are 12 students in front of Amy, how many student(s) is / are behind Amy?
2A 班共有 36 名學生排成一列, 如果艾美前面有 12 名學生。問艾美後面有多少名學生?
5. According to the pattern shown below, how many \oplus is / are there in the 100th group?
按以下規律, 問第 100 組有多少個 \oplus ?



Question 5
第 5 題

6. 3 years later, Amy will be 18 years old. How old is Amy?
三年後艾美是 18 歲, 請問今年她多少歲?

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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Arithmetic

算術

7. Find the value of $8+18+28+38+48+2+2+2+2+2$.
求 $8+18+28+38+48+2+2+2+2+2$ 的值。
8. Find the value of $15\div 3+24\div 6+36\div 6$.
求 $15\div 3+24\div 6+36\div 6$ 的值。
9. Find the value of $23-22+21-20+19-18+17-16+15-14+13-12$.
求 $23-22+21-20+19-18+17-16+15-14+13-12$ 的值。
10. Find the value of $1-2+3-4+5-6+7-8+9-10+11$.
求 $1-2+3-4+5-6+7-8+9-10+11$ 的值。
11. 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？
 $\underline{\hspace{2cm}}\div 5=11$
12. Find the value of $13\times 1+13\times 2+13\times 3+13\times 4$.
求 $13\times 1+13\times 2+13\times 3+13\times 4$ 的值。

Number Theory

數論

13. Now the light is off. Amy presses the light button 28 times. Can you guess whether the light is on or off?
現時燈是熄的，艾美按燈掣 28 次，請猜猜現時燈是亮或熄的。
14. 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)
- $$4 \quad \underline{\hspace{1cm}} \quad 4 \quad \underline{\hspace{1cm}} \quad 7 \quad \underline{\hspace{1cm}} \quad 8 \quad = \quad 7$$
15. The numbers below follow the arithmetic sequence, what is the 22nd number?
根據以下的等差數列，問第 22 個數是甚麼？

102、104、106、108、110、...

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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16. How many even number(s) which is / are larger than 19 and smaller than 33 is / are there?

有多少個比 19 大但比 33 小的偶數？

17. What is the largest 2-digit even number?

求最大兩位偶數的值。

18. Determine the result of $1+4+7+10+13+16+19+22+25+28+31$ is odd or even?

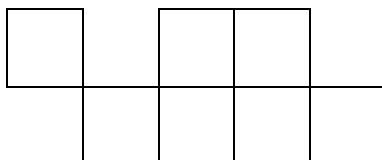
判斷 $1+4+7+10+13+16+19+22+25+28+31$ 的結果是奇數（單數）還是偶數（雙數）。

Geometry

幾何

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

請問下圖有多少個正方形？

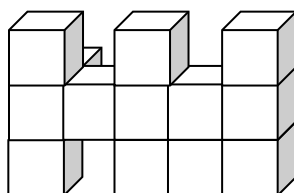


Question 19

第 19 題

20. 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？

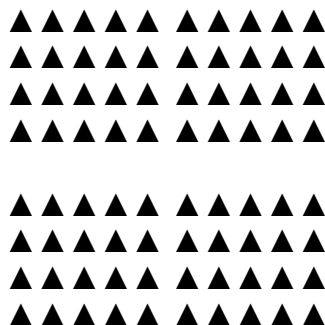


Question 20

第 20 題

21. How many triangle(s) is / are there in the figure below?

下圖有多少個三角形？



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請將答案寫在

答題紙

 上。

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Question 21

第 21 題

22. A prism has 27 edges, how many face(s) does this prism have?
有一個柱體有 27 條邊，問這個柱體有多少個面？
23. According to the pattern shown below, what is the figure in the space provided?
按以下規律，橫線上的圖案應該是甚麼？

△ ○ □ ○ △ △ ○ □ ○ △ △ ○ □ ○ △ △ ○ _ ...

Question 23

第 23 題

24. At most how many line(s) can be formed by using 6 points on a plane?
在平面上畫 6 點，最多可連成多少條線？

Combinatorics

組合數學

25. A restaurant has 2 types of appetizers, 3 types of main courses and 4 types of desserts. How many way(s) can a customer order an appetizer, a main course and a dessert?
一間餐廳有 2 款前菜、3 款主菜和 4 款甜品，顧客享用 1 款前菜、1 款主菜和 1 款甜品有多少種選擇？
26. What is the smallest 4-digit number by using 2, 9, 7 and 0 that is divisible by 10? (Each number can only be used once)
利用 2、9、7、0 組成的四位數，當中能被 10 整除的最小是多少？（每個數字只能用一次）
27. How many even number(s) is / are there in the following numbers from the 1st to the 45th?
下面的數由第 1 個到第 45 個數之間，有多少個奇數？（偶數即是雙數）
2, 5, 8, 11, 14, 17, ...
28. How many 2-digit multiple(s) of 11 is / are there?
有多少個 11 的倍數兩位數？
29. Pick 3 from 6 children to take part in Chinese competition. How many different combination(s) is / are there?
6 個小孩中選 3 個參加中文比賽，有多少個不同可能性？
30. Divide 28 marbles into 4 equal piles. How many marble(s) is / are there in each pile?
將 28 粒波子分成 4 等份，每份有多少粒波子？

~ 全卷完 ~

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請將答案寫在

 上。

All answers should be written on the ANSWER SHEET.

~ 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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