

第二屆全港小學數學挑戰賽(2015-2016)
The 2nd Hong Kong Primary Mathematics Challenge (2015-2016)

初賽 (二零一五年十二月五日)
Semi-Final (5th December, 2015)

小四組 個人項目 試卷
Primary 4 Individual Event Question Paper

參賽者須知 Instructions to Contestants

1. 在比賽過程中，參賽者必須將准考證放在桌上。
You should place your Admission Form on your desk for the whole session.
2. 於比賽期間必須關掉所有手提電話、通訊工具及其他響鬧裝置。
During the competition, you should switch off your mobile phone and any other electronic or communication devices that can emit sound.
3. 本項目以筆試形式舉行，須於限時 45 分鐘內完成所有題目。
Contestants should finish all questions in this 45-minutes written test.
4. 在答題紙上填寫學校名稱、參賽者姓名及班級、參賽者編號、座位編號。
Write your name, class, admission number, seat number and school name on the front cover of your answer sheet.
5. 參賽者於比賽時只准使用大會提供之草稿紙。
You can only use the rough work sheet provided by the organizer.
6. 參賽者不可於比賽中使用計算機。
The use of calculators is NOT allowed.
7. 每題只需把答案填寫在大會提供之答題紙上，否則不予評分。參賽者不需填寫計算步驟。
Put your answers on the answer sheet provided, otherwise, the answers will not be marked. You are not required to show the steps in your calculations.
8. 除非問題特別聲明，分數的答案須化至最簡。
Unless otherwise stated by the question, answers of fraction should be expressed in their simplest form.
9. 除特殊情況外，參賽者於本項目完結前不能提早交卷或離場。
Under normal circumstances, contestants are not allowed to leave the contest venue before the end of this session.
10. 違反比賽規則者有可能被取消參賽資格。
Any contestant who violates the rules and regulations of the competition might risk disqualification.
11. 參賽者如對比賽過程或試題內容有任何疑問或爭議，參賽者須於當天比賽結束後立即向大會提出，否則不予受理。大會保留是次比賽的所有最終決定權。
If you have any queries, you should contact the officer-in-charge immediately after the competition. Late queries will not be entertained. The decision of the organizing committee will be final.

時限：四十五分鐘
Time Allowed: 45 minutes

總分：100
Total marks: 100

1. 計算 $1.234 + 12.34 + 123.4 + 1234 =$ (2 分)
Evaluate $1.234 + 12.34 + 123.4 + 1234 =$ (2 marks)

2. 計算 $\frac{1}{2} + \frac{2}{3} + \frac{3}{4} + \frac{4}{5} =$ (3 分)
Evaluate $\frac{1}{2} + \frac{2}{3} + \frac{3}{4} + \frac{4}{5} =$ (3 marks)

3. 計算 462 與 588 的最大公因數(H.C.F.) 。 (2 分)
Find the H.C.F. of 462 and 588. (2 marks)

4. 求 12345×99998 的最後兩個位數字。 (3 分)
Find the last two digits of 12345×99998 . (3 marks)

5. 列出 12、20、42 的首 3 個公倍數。 (3 分)
List the first 3 common multiples of 12, 20 and 42. (3 marks)

6. 將 0.41 小時轉換為分及秒。 (4 分)
Express 0.41 hour to minute and second. (4 marks)

7. 計算 $(1+3+5+\dots+2015)-(2+4+6+\dots+2014) =$ (4 分)
Evaluate $(1+3+5+\dots+2015)-(2+4+6+\dots+2014) =$ (4 marks)

8. 計算 $899998 - 799999 + 89998 - 79999 + 8998 - 7999 + 898 - 799 + 88 - 79 =$ (5 分)
Evaluate $899998 - 799999 + 89998 - 79999 + 8998 - 7999 + 898 - 799 + 88 - 79 =$ (5 marks)

9. 計算 $9999 \times 7777 + 3333 \times 6666 =$ (5 分)
Evaluate $9999 \times 7777 + 3333 \times 6666 =$ (5 marks)

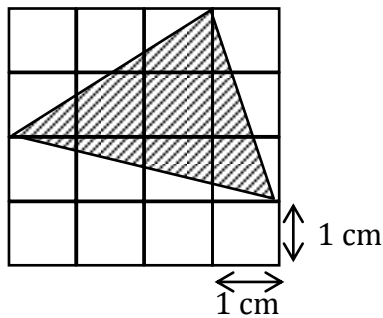
10. 求以下數列中方格內的數字。 (4 分)
Find the numbers in the squares of the following sequence. (4 marks)
9, 11, 15, 21, 29, , ,

11. 求下圖陰影部份面積。

(5 分)

Find the area of the shaded region of the following figure.

(5 marks)



12. 已知 2015 年 12 月 5 日是星期六，那麼 2019 年 12 月 5 日是星期幾？

(5 分)

Given that 5th December 2015 is Saturday, then what is the weekday of 5th December 2019?

(5 marks)

13. 設 n 為大於 1 的整數，若 n 個連續數的和是 108，求 n 的最小值。

(5 分)

Let n be an integer greater than 1. If the sum of n consecutive integers is 108, find the smallest possible value of n .

(5 marks)

14. 定義 $a \otimes b = (a - b) \times a - b$ 。求 $(5 \otimes 3) \otimes 1$ 的值。

(5 分)

Define $a \otimes b = (a - b) \times a - b$. Find the value of $(5 \otimes 3) \otimes 1$.

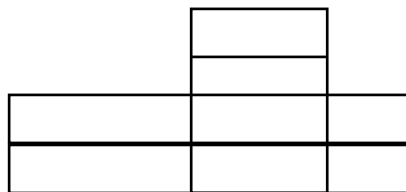
(5 marks)

15. 下圖中共有多少個長方形？

(6 分)

How many rectangles are there in the following figure?

(6 marks)



16. 去年舞蹈學會共有 36 名學員，其中女生佔 $\frac{7}{9}$ 。今年只多了 N 名女生加入，使女生人數

佔所有會員人數的 $\frac{4}{5}$ 。求 N 是多少？

(7 分)

There were 36 members in Dancing Club last year. Among them, $\frac{7}{9}$ were female. This year,

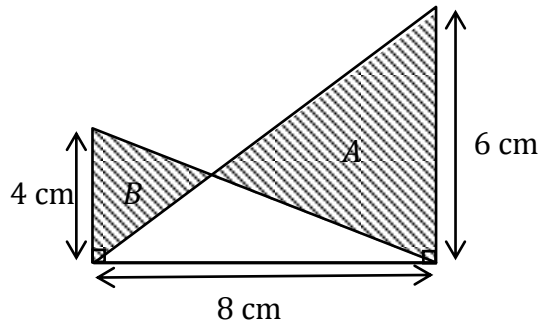
N girls join the Dancing Club, so that $\frac{4}{5}$ are female. Find the value of N .

(7 marks)

17. 把 1-9 這九個數字填入下圖的方格中，使等式成立。 (8 分)
 Put the numbers 1 to 9 into the following boxes to satisfy the expressions. (8 marks)

$$\square\square \div \square\square = \square = \square\square - \square\square$$

18. 圖中 A 面積比 B 面積大多少平方厘米？ (7 分)
 In the figure, find the difference between the areas of region A and region B. (7 marks)



19. 三個質數的積是 20677，求該三個質數的和。 (8 分)
 The product of three prime numbers is 20677. Find the sum of these three numbers. (8 marks)

20. 大衛和彼得二人參加吃熱狗大賽。大衛每 5 秒吃一隻熱狗，彼得每 7 秒吃一隻熱狗。兩人面前各有一個顯示器，顯示已吃完的熱狗數目。問開賽後多少秒，大衛的顯示器所顯示的數字首次比彼得的顯示器所顯示的數字大 4？ (9 分)
 David and Peter join a hotdog eating competition. David eats a hotdog every 5 seconds while Peter eats a hotdog every 7 seconds. There is a counter in front of each person showing the number of hotdog they have eaten. After how many seconds from the beginning of the competition when the counter of David first exceeds that of Peter? (9 marks)

試卷完 END OF PAPER