

第一屆全港小學數學挑戰賽(2014-2015)
The First Annual Hong Kong Primary Mathematics Challenge (2014-2015)

決賽 (二零一五年三月廿八日)
Final (28th March, 2015)

小四組	個人項目	題目紙
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、比賽試場、座位編號。
Write your name, class, admission number, venue, 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 sheets 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 your working out.
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 in the form of fractions 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 risks 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

- 某次數學比賽中，其中一題要求參賽者把某個不等於零的數除以 4。吉蒂誤把「除」字看作「乘」字。那麼，吉蒂的答案是正確答案的多少倍？ (4 分)

In a mathematical competition, a question asked the contestants to divide a non-zero number by 4. Kitty wrongly read the word 'divide' as 'multiply'. How many times the correct answer was Kitty's answer? (4 marks)
- 100000000001 除以 3 時，餘數是多少？ (4 分)

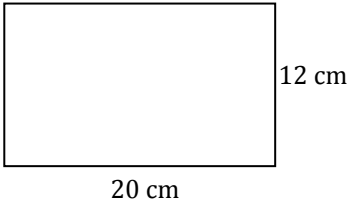
What is the remainder when 100000000001 is divided by 3? (4 marks)
- 計算 $(3 + 7 + 11 + \dots + 47) - (2 + 6 + 10 + \dots + 46)$ 。 (5 分)

Calculate $(3 + 7 + 11 + \dots + 47) - (2 + 6 + 10 + \dots + 46)$. (5 marks)
- 2 元和 5 元的硬幣共 36 枚，共值 99 元。求兩種硬幣各有多少枚。 (5 分)

There are 36 coins, some of which are \$2 coins and the others are \$5 coins. The total value is \$99. How many coins of each type are there? (5 marks)
- $12ab56$ 為一可被 33 整除的六位數，求 a 的所有可能值。 (6 分)

$12ab56$ is a 6-digit number and it is divisible by 33. Find all the possible values of a . (6 marks)
- 將圖中的長方形用相同大小的正方形鋪滿，請問最少需要多少個正方形？ (5 分)

The following rectangle is to be covered with squares of same size. At least how many squares are needed? (5 marks)



20 cm

12 cm
- 有一張長方形卡紙，若紙的長度增加 3 cm，則紙的面積會增加 45 cm^2 ，若紙的闊度減小 2 cm，則紙的面積會減小 32 cm^2 ；求卡紙原來的面積。 (6 分)

If the length of a rectangular sheet of paper is increased by 3 cm, its area will be increased by 45 cm^2 . If the width is decreased by 2 cm, the area will be decreased by 32 cm^2 . Find the original area of the paper. (6 marks)
- 在 51 至 500 之間(包括 51 及 500)，共有多少個數能給 4 整除？ (5 分)

How many numbers between 51 and 500 (including 51 and 500) are divisible by 4? (5 marks)
- 計算 $47 \times 43 + 48 \times 82 + 75 \times 48$ 的值。 (6 分)

Evaluate $47 \times 43 + 48 \times 82 + 75 \times 48$. (6 marks)

18. 在“說謊俱樂部”中，會員說的都是謊話，非會員說的都是真話。在俱樂部中，分別向 A、B、C 三人各問了一條問題。

In the ‘Lie Club’, all members only tell lies, non-members only tell the truth. 3 people A, B and C in the club are asked a question.

問 A：「B 是會員嗎？」，A 回答：「不，B 不是會員」。

再問 B：「C 是會員嗎？」，B 回答：「嗯！C 是會員」。

再問 C：「A 是會員嗎？」。

C 的回答是什麼呢？

(4 分)

Ask A: ‘Is B a member?’, ‘No, B is not a member,’ A answered.

Ask B: ‘Is C a member?’, ‘Yes, C is a member,’ B answered.

Ask C: ‘Is A a member?’.

What will C answer?

(4 marks)

19. 小明和小福喜歡用暗號互傳訊息，小明傳給小福的暗號如下：

Johnny and David always transfer messages with secret code. Johnny sent the following secret code to David:

gzd sjb umtsj

但小福忘記了解開暗號的方法，只記得上一次小明傳給他的暗號是 bfyhm knqr，這暗號是代表 watch film。

David forgot the decoding method, but he remembers Johnny sent the secret code ‘bfyhm knqr’ to him last time. The actual message is ‘watch film’.

這一次暗號代表的是甚麼？

(7 分)

What is the actual message this time?

(7 marks)

試卷完 END OF PAPER