MathConceptition

2022

P1

Question Booklet

問題簿

Name:
姓名：

Reg. No.:
登記編號：

Time: 50 Minutes
Calculators are NOT permitted.

Instructions:

1. **DO NOT OPEN THIS QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.**
2. **Write your name and registration number on the cover of this question booklet.**
3. **If the information printed on your answer sheet is not correct, please inform the invigilator immediately.**
4. **Please use a pencil and write your answers neatly ONLY on the answer sheet provided. DO NOT write or draw in the circle next to each answer box. No mark will be given if you failed to follow this instruction.**
5. **Unless otherwise specified, all answers must be in exact value and in its simplest form. Writing the units for the answers is NOT necessary.**
6. **Rough-work sheets provided will be collected at the end of the contest but they will not be marked.**
7. **Diagrams in this question booklet are not necessarily drawn to scale.**

限時：**50 分鐘**
不允許使用計算機。

比賽須知：

1. 未宣布開始前，切勿翻閱此問題簿。

2. 請在此問題簿封面的適當位置寫上你的姓名及登記編號。

3. 請核對答題紙上列出的資料是否與你相符。如有問題，請舉手。

4. 所有答案必須寫在答題紙內，並須用鉛筆作答。請勿填寫或畫花題號後方的圓圈，否則該題答案將會作廢。

5. 除非題目特別表明，所有答案均不需填寫單位，但必須以準確數值及最簡方式表示。

6. 比賽完結時監考員會收回桌上的草稿紙，但草稿紙上所書寫的任何文字或圖表將不獲評閱。

7. 此問題簿的附圖不一定依比例繪成。

1) $13 + 7 = ?$ [1%]

2) $28 + 17 = ?$ [1%]

3) $13 - 9 = ?$ [1%]

4) $17 + 25 = ?$ [1%]

5) $33 - 15 = ?$ [1%]

6) $12 + 4 + 26 = ?$ [1%]

7) $20 - 3 - 8 = ?$ [1%]

8) $23 + 25 + 17 = ?$ [1%]

9) $34 - 23 - 4 = ?$ [1%]

10) $23 + 10 + 19 = ?$ [1%]

11) $40 - 23 + 33 = ?$ [1%]

12) $18 - 16 + 25 = ?$ [1%]

13) $35 + 42 - 23 = ?$ [1%]

14) $28 + 32 - 36 = ?$ [1%]

15) $53 + 21 - 26 - 19 = ?$ [1%]

16) Peter counts backward from 48 to 13. How many numbers does he count? [2.0%]

小明由 48 開始倒數到 13，共數出多少個數？

17) Find the missing number in the pattern. [2.1%]

根據規律，找出橫線上的數字。

$$23 , \underline{} , 15 , 11, 7, ...$$

18) Fill in the appropriate "+" or "–" to make the calculation valid. (Write only the symbols with the correct order on the answer sheet) [2.2%]

於下列算式填上適當的「+」或「–」，使算式成立。（ 只需將符號順次序寫在答案紙 ）

$$28 \square 4 \square 20 \square 3 = 15$$

19) If each letter represents a number, find the value of B. [2.3%]

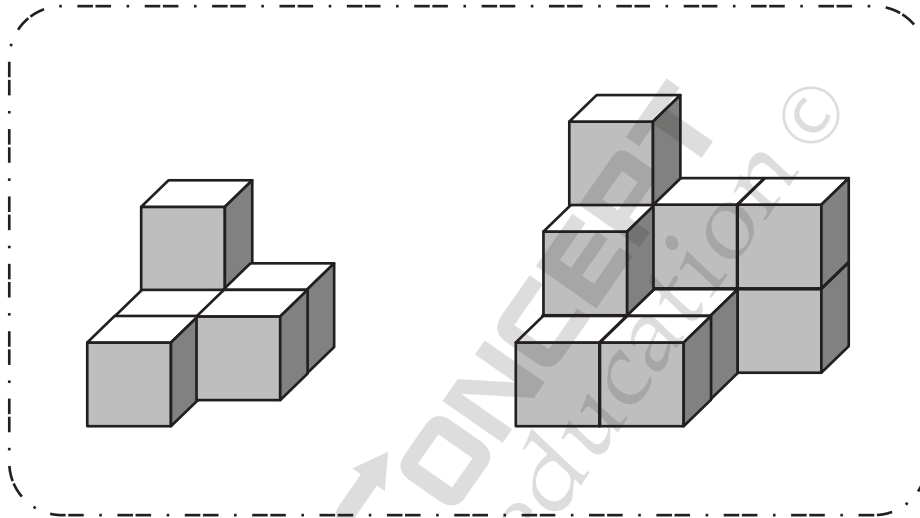如果每個英文字母代表一個數字，求 B 的數值。

$$A + 4 = 15$$

$$A + B = 25$$

---

20) People are queuing to bill out in a shop. There are 13 people in front of Mandy and 18 people behind her. How many people are queuing at the shop altogether? [2.4%]

人們在商店裡排隊結賬。雨婷前面有 13 個人，而她身後有 18 個人。一共有多少人在排隊結賬？

21) The figures below are stacked with the same cubes ▢.   [2.5%]
What is the difference in the number of cubes used to stack with in the two figures?

左圖和右圖用相同的小正方體 ▢ 堆疊而成。它們相差多少個小正方體？

22) The teacher asks her students to wear clothes in different colours in Sports Day. The first wears pink, the second wears purple, the third wears orange, the fourth wears pink, the fifth wears purple, the sixth wears orange, and so on. What colour is the 24th student wearing? [2.6%]

老師要求學生在運動會中穿不同顏色的衣服。第一個穿粉紅色，第二個穿紫色，第三個穿橙色，第四個穿粉紅色，第五個穿紫色，第六個穿橙色，如此類推。第 24 個學生穿甚麼顏色的衣服？

---

23) 13 people joined a queue, then 16 people left the queue. If there are 51 people in the queue now, how many people were there originally? [2.7%]
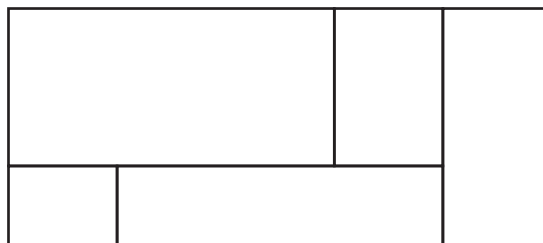
有一個隊伍，有 13 人加入隊伍，再有 16 人離開。如果現在有 51 人在隊伍當中，隊伍原有多少人？

24) A rubber band is 4 cm long. Every time when Ken stretches the rubber band, the rubber band extends by 3 cm and then shrinks by 1 cm. When the rubber band is pulled over 12 cm, the rubber band will break. How many times can Ken pull at most without breaking the rubber band? [2.8%]

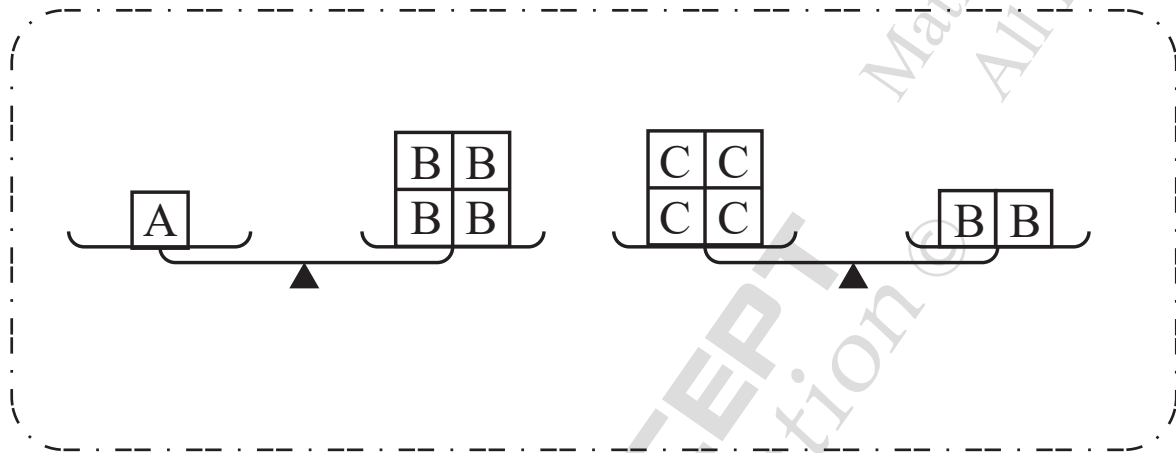一條橡皮筋長 4 厘米。小雄每次拉橡皮筋，橡皮筋就會延長 3 厘米，再收縮 1 厘米。當橡皮筋被拉到超過 12 厘米時，就會斷掉。在不拉斷橡皮筋的情況下，小雄最多可以拉多少次？

---

25) How many rectangles are there? [2.9%]

下圖一共有多少個長方形？

26) How many C's are equal to the weight of one A? [3.0%]

1 個 A 的重量等於多少個 C 的重量？

---

27) Dad got a book with 100 pages. He reads 10 pages of the book today, and each day he reads 5 more pages than the previous day. How many pages will he read in total after 3 days? [3.1%]

爸爸有一本 100 頁的書。他今天看了 10 頁，之後的每一天都會比前一天多看 5 頁。3 天後他共看了多少頁？

28) The picture below shows the pocket money of Sandy. If each piece of milk biscuit is sold for $2.10, how many milk biscuits can she buy at most using her pocket money? [3.2%]

圖中是<u>小美</u>的零用錢。如果每塊牛奶餅售二元一角，她用零用錢最多可以買牛奶餅多少塊？

29) 3 years ago, Katy was 5 years old. Her brother is 3 years younger than her. What is the sum of their ages after 20 years? [3.3%]

<u>嘉嘉</u> 3 年前是 5 歲。她的弟弟比她小 3 歲。20 年後，他們歲數的和是多少？

30) A cookie shop had 63 Palmier cookies. After selling out 38 Palmier cookies in the morning, the baker made 10 more. The baker was too hungry and he ate some. There are 28 Palmier cookies left. How many Palmier cookies did the baker eat? [3.4%]

某餅店原有 63 塊蝴蝶酥，上午售了 38 塊，麵包師又做了 10 塊。可是，麵包師肚子餓了，他偷吃了一些蝴蝶酥。最後剩下 28 塊蝴蝶酥。請問麵包師偷吃了蝴蝶酥多少塊？

31) Mom has \$32. Dad has \$6. How much should Mom give to Dad, so they can have the same amount of money? [4.0%]

媽媽身上有 32 元，爸爸有 6 元。媽媽要給爸爸多少元，他們每人身上的錢才會相同？

32) What is the units digit of $1 + 3 + 5 + 7 + … + 59 + 61$? [4.1%]

$1 + 3 + 5 + 7 + … + 59 + 61$ 的個位是多少？

---

33) Johnny is on the 9th floor of a building and he wants to go to the 2nd floor. If there are 12 steps between each floor, how many steps does he have to walk? [4.2%]

阿強在大廈的 9 樓，他想走到 2 樓。如果每層有 12 級樓梯，他一共要走多少級樓梯？

34) Based on the hints below, find the name of C. [4.3%]

根據下方的提示，找出丙的名字。

1. There are three people: A, B, and C. Each one of them has a different name.

   有甲乙丙三人，他們的名字都是不一樣的。

2. The names of the three people are Sara, Larry and Ken.

   三個人的名字是<u>小美</u>、<u>小強</u>和<u>小安</u>。

3. Sara is not the name of A.

   甲的名字不是<u>小美</u>。

4. The name of B is not Larry nor Sara.

   乙的名字不是<u>小強</u>，也不是<u>小美</u>。

35) There are 30 days in September. If 15th September is Wednesday, what day of week is 16th October of the same year? [4.4%]

九月有 30 日。如果 9 月 15 日是星期三，那麼同一年的 10 月 16 日是星期幾？

---

36) There are 6 children, and they shake hands with other children once. How many times did they shake hands altogether? [4.5%]

有小朋友 6 個，每人都跟另一人握手一次，共握手多少次？

37) The sum of two numbers is 18, and their difference is 6. [4.6%]
Find the larger number.

兩個數的和是 18，差是 6，找出較大的數。

---

38) Find the missing number in the pattern. [4.7%]

根據規律，找出橫線上的數字。

$$2 ☺ 3 = 2 + 5 = 7$$

$$5 ☺ 8 = 5 + 10 = 15$$

$$4 ☺ 2 ☺ 3 = 8 ☺ 3 = 13$$

$$5 ☺ 8 ☺ 1 = \underline{\quad ? \quad}$$

39) 4 children queue in a line. How many different ways [4.8%] can they line up?

四個小孩排成直線。共有多少個不同排列方法？

40) Find the missing number in the pattern. [4.9%]

根據規律，找出橫線上的數字。

$$3 , 9 , \underline{\quad ? \quad} , 81 , 243 , 729 , ...$$

End of paper
全卷完

MATH 數學·思維大激鬥 CONCEPTION

ANSWER SHEET

P1

	REG NO	
	NAME	
	GROUP	
	SEAT	

#	ANSWER	#	ANSWER	#	ANSWER	#	ANSWER
1	20	11	50	21	6	31	($)13
2	45	12	27	22	Orange 橙	32	1
3	4	13	54	23	54	33	84
4	42	14	24	24	3	34	Sara 小美
5	18	15	29	25	9	35	Saturday (星期)六
6	42	16	36	26	8	36	15
7	9	17	19	27	70	37	12
8	65	18	+ − +	28	4	38	18
9	7	19	14	29	53	39	24
10	52	20	32	30	7	40	27

①②④⑧