



# MathConceptition

## 2017

# G3

# Question Booklet

# 問題簿

Name:

姓名：

Reg. No.:

考生編號：

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Time: 1 hour

Calculators are NOT permitted.

### Instructions:

1. DO NOT open the contest booklet until you are told to do so.
2. You may use pencil to write your answer and scrap papers for rough work.
3. All questions MUST BE answered on the answer sheet that comes with the question booklet. Any writing on the question booklet would not be accepted as answer.
4. Diagrams are not drawn to scale. They are intended as aids only.

限時：1小時

不允許使用計算機。

### 考生須知：

1. 在考官宣佈開始前，請勿翻閱問題簿。
2. 以鉛筆作答題目。如有需要，可要求算草紙。
3. 全部題目均須作答在答題紙上。在問題簿上的任何內容均不予評閱。
4. 試卷的附圖不一定依比例繪成。

1.  $22 + 16 + 88 + 54 = ?$  [1%]
2.  $9876 - 5432 = ?$  [1%]
3.  $2000 - 1984 = ?$  [1%]
4.  $8 \times 6 = ?$  [1%]
5.  $777 \times 7 = ?$  [1%]
6.  $63 \div 7 = ?$  [1%]
7.  $72 \div 6 = ?$  [1%]
8.  $13 + 24 - 39 + 27 = ?$  [1%]
9.  $29 + 29 + 29 + 29 + 29 + 29 + 66 = ?$  [1%]
10.  $2 \times 3 + 3 \times 5 + 5 \times 7 + 7 \times 11 = ?$  [1%]
11.  $22 + 8 \times 25 = ?$  [1%]
12.  $37 \times (91 - 88) = ?$  [1%]
13.  $7 \times (63 + 36) = ?$  [1%]
14.  $92 \div 4 = ?$  [1%]
15.  $1001 \div 7 = ?$  [1%]

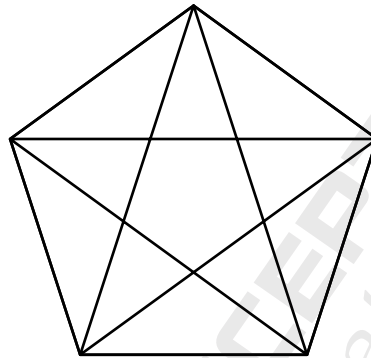
16. Form a largest 5-digit even number by using the number cards below. [2.0%]

用以下的數字卡組成一個最大的五位雙數。



17. How many pair(s) of parallel lines are there in the figure below? [2.1%]

下圖有多少對平行線？

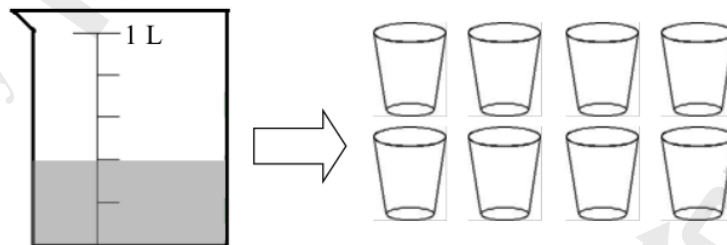


18. Nathan spent 1314 dollars on shopping yesterday. He spent 5796 dollars today more than yesterday. How much money did he spend in these two days? [2.2%]

昨天大雄花了 1314 元在購物上，今天比昨天多花了 5796 元。問大雄在這兩天花了多少元？

19. What is the capacity of each cup in mL? [2.3%]

一隻杯的容量是多少毫升？



20. A bag of sugar weighs 15 kg. A bag of flour weighs 21 kg. How heavy in kilograms are 7 bags of sugars and 8 bags of flour altogether? [2.4%]

一袋糖重 15 公斤，一袋麵粉重 21 公斤，那麼 7 袋糖和 8 袋麵粉共重多少公斤？

21. A tablet computer costs 4999 dollars. Buying 2 tablet computers at the same time [2.5%]  
will receive a discount of 800 dollars. How much should you pay for buying 7 tablet  
computers?

一部平板電腦售價 4999 元。買兩部有 800 元折扣。買 7 部平板電腦需付多少元？

22. A cupcake costs 29 dollars. If Tiffany buys half a dozen cupcakes, how much does [2.6%]  
she have to pay?

一個紙杯蛋糕售價 29 元。如果小芬買半打紙杯蛋糕，她需要付多少元？

23. Alice has 6 grandchildren. She made 81 cookies in the morning. If she wants to give [2.7%]  
all the cookies to each of her grandchildren and each of her grandchildren must get  
the same number of cookies, at least how many more cookies does she have to make  
in the afternoon?

愛麗絲有 6 個孫子。有天早上她造了 81 件曲奇餅。如果她想把所有曲奇餅平均分  
給她的每個孫子，她在下午至少要多造多少件曲奇餅？

24. The flight time from Hong Kong to Singapore is 3 hours 48 minutes. If the flight [2.8%]  
arrived at Singapore at 11:05 pm, when did the flight take off? (Answer in 24-hour  
time)

從香港到新加坡的飛行時間是 3 小時 48 分鐘。如果飛機在晚上 11 時 5 分抵達新  
加坡，它在甚麼時候起飛？（以 24 小時報時制作答）

25. Find the missing number.

[2.9%]

找出橫線上的數字。

$$3 \text{ km } 80 \text{ m} = \underline{\quad ? \quad} \text{ m}$$

26. What is  $\frac{3}{7}$  of 91?

[3.0%]

91 的  $\frac{3}{7}$  是多少？

27. Amy has 9 dollars less than Betty. Betty has 11 dollars more than Candy. If Candy has 13 dollars, how much money do the three girls have altogether? [3.1%]

甲比乙少 9 元，乙比丙多 11 元。如果丙有 13 元，三人共有多少元？

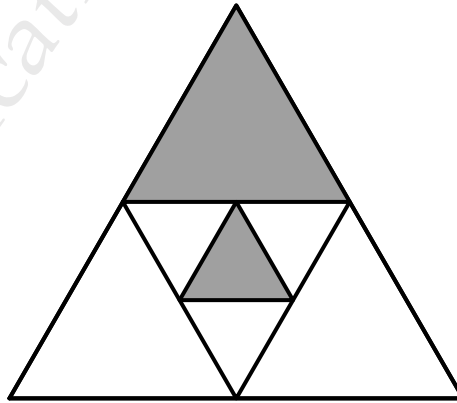
28. Jeff has 17 cookies. Eric has 11 cookies. How many cookies does Jeff have to give Eric so that the boys have the same number of cookies? [3.2%]

小夫有 17 塊曲奇，大力有 11 塊曲奇。問小夫要給大力多少塊曲奇，才可以使他們擁有的曲奇數目相同？

29. Write the fraction that represents the shaded part in the figure.

[3.3%]

圖中著色部分佔全圖的幾分之幾？



30. ♣ and ♠ are two different even numbers, and ♥ is an odd number such that ♣ < ♥ < ♠. [3.4%]

Which of the following will always give an odd number?

♣ 和 ♠ 代表兩個不同的雙數，♥ 代表一個單數，而且 ♣ < ♥ < ♠。以下哪一個必定是單數？

(i)  $(♥ + ♣) \times ♠$

(ii)  $(♠ - ♣) \times ♥$

(iii)  $(♠ - ♥) \times ♣$

(iv)  $(♠ + ♣ - ♥) \div (♣ - ♥ + ♠)$

(v)  $(♣ + ♠) \div (♠ - ♣) \div 2$

A. (ii) only   B. (iv) only   C. (i) and (iii)   D. (iv) and (v)   E. (v) only

31. Find the missing number in the pattern. [4.0%]

根據規律，找出橫線上的數字。

89 , 55 , 34 , \_\_\_\_\_ , 13 , 8 , 5 , 3 , 2 , 1 , 1

32. Find the value of  $64 \times 2017 + 36 \times 2017$ . [4.1%]

求  $64 \times 2017 + 36 \times 2017$  的值。

33. Cutting a wooden stick into 3 pieces needs half an hour. How many minutes does it take to cut the wooden stick into 6 pieces? [4.2%]

將一條木條鋸開 3 份需要半小時。將一條木條鋸開 6 份需要多少分鐘？

34. What is the remainder when 314159265358979 is divided by 9? [4.3%]

314159265358979 除以 9 的餘數是多少？

35. The weight of 3 microwaves and 4 televisions is equal to the weight of 40 laptops. The weight of a television is equal to the weight of 7 laptops. How many laptops does a microwave weigh? [4.4%]

三部微波爐和四部電視機的重量，等於四十部手提電腦的重量；一部電視機的重量，等於七部手提電腦的重量。一部微波爐的重量，等於多少部手提電腦的重量？

36. There are 20 teams in a football tournament. How many football matches are there [4.5%]  
if every team has to play against each of the other teams exactly once?

一個足球聯賽有 20 支球隊，如果每支球隊都要與所有其他球隊比賽一次，問總共  
有多少場比賽？

37. Jane will read either 1, 2, 3, 4, or 5 story books every day. If she wants to finish [4.6%]  
reading 9 story books in three days, how many different ways are there?

小珍每天都會閱讀 1 本、2 本、3 本、4 本或 5 本故事書，她要用三天完成閱讀 9  
本書，有多少種方法？

38. If each letter represents a different digit, then what 3-digit number does “ABC” [4.7%]  
represent?

以下算式中，每個英文字母都代表不同的數字。問「ABC」代表哪一個三位數？

$$\begin{array}{r} \text{A} \text{ A} \\ \text{B} \text{ B} \\ + \quad \text{C} \text{ C} \\ \hline \text{A} \text{ B} \text{ C} \end{array}$$

39. There are some apples, oranges, and bananas in a large basket. If 13 of them are not [4.8%]  
apples, 21 of them are not oranges, and 18 of them are not bananas, then how many  
fruits are there in the basket?

一個大籃子裏面有一些蘋果、橙和香蕉。其中 13 個不是蘋果，21 個不是橙，有  
18 個不是香蕉，那麼籃子裏面有多少個水果？



40. Student A, B, C, and D are competing in the MathConceptition. After the event, [4.9%]  
the four MathConceptition staff made the following claims:

Staff W: "The champion is either A or C."

Staff X: "Student D is the champion."

Staff Y: "The champion is among B, C, and D."

Staff Z: "staff X is telling the truth."

If two of the staff are telling the truth and the other two are lying, who is the champion?

學生 A、B、C 和 D 分別是全港數學大激鬥最後的冠軍大熱。經過一小時的比賽後，四位工作人員有以下說法：

W 說：「冠軍不是 A 就是 C。」

X 說：「冠軍是 D。」

Y 說：「冠軍是 B、C 或 D 的其中一人。」

Z 說：「員工 X 講了真話。」

如果有兩位工作人員講真話，另外兩位在講假話，請問誰是冠軍？



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1) 180	11) 222	21) \$32593	31) 21
2) 4444	12) 111	22) \$174	32) 201700
3) 16	13) 693	23) 3	33) 75
4) 48	14) 23	24) 19:17	34) 5
5) 5439	15) 143	25) 3080	35) 4
6) 9	16) 97540	26) 39	36) 190
7) 12	17) 5	27) \$52	37) 19
8) 25	18) \$8424	28) 3	38) 198
9) 240	19) 50	29) $\frac{5}{16}$	39) 26
10) 133	20) 273	30) B	40) C