

## HONG KONG ATTAINMENT TEST

## 香港學科測驗

## Pre-Secondary One

## 中一入學前

**Mathematics****數學**

## Mock Paper 2

## 模擬試卷(二)

Time allowed for the test: 50 minutes

測驗時間：50分鐘

**Instructions:**

1. This test contains two sections:  
Section A: Questions 1-30  
Section B: Questions 31-36
2. Answer ALL questions.
3. Write your answers on the answer sheet.
4. Write your name, class and class number on the answer sheet.
5. You may do your rough work in the blank space of this test booklet and there is no need to rub it out after the test.
6. The use of calculator is not allowed.

**學生須知：**

1. 本測驗卷共有兩部分：  
甲部：第1至第30題  
乙部：第31至第36題
2. 全部題目均須作答。
3. 把答案寫在答題紙上。
4. 在答題紙上填寫學生姓名、班別及學號。
5. 學生可利用本測驗卷的空白部分做算草，測驗完畢後無須將算草擦去。
6. 不准使用計算機。



CLASSROOM Pre-Secondary One Mathematics Mock Papers (P.6)

課室中一入學前數學科模擬試卷(小六)

Note:

Not all diagrams are drawn to scale.

注意：

部分附圖不依比例繪畫。

## SECTION A (60 marks)

Choose the correct answer. You only need to write down the letter preceding the selected answer.

## 甲部 (60分)

選出正確的答案。學生只須填上所選答案前的英文字母。

1. After rounding off 74 998 586 to one of the following places, the approximate value may never be 75 000 000. What is that place?

- A. millions
- B. hundred thousands
- C. ten thousands
- D. thousands

1. 把 74 998 586 取近似值至以下其中一個位，不可能得出 75 000 000。該位是什麼？

- A. 百萬位
- B. 十萬位
- C. 萬位
- D. 千位

2. What is the sum of the smallest and the greatest multiples of 14 between 80 and 145?

- A. 84
- B. 140
- C. 220
- D. 224

2. 在 80 至 145 之間，14 的最小和最大的倍數之和是多少？

- A. 84
- B. 140
- C. 220
- D. 224

3. How many ' $\frac{4}{7}$ 's should be added together to make the sum of 28?

- A. 49
- B. 28
- C. 16
- D. 14

3. 多少個「 $\frac{4}{7}$ 」相加後的總和是 28？

- A. 49
- B. 28
- C. 16
- D. 14

4. If 126 is a common multiple of 9 and  $\star$ , which of the following numbers can be  $\star$ ?

- A. 4
- B. 12
- C. 21
- D. 27

4. 如果 126 是 9 和  $\star$  的公倍數，以下哪一個數可能是  $\star$ ？

- A. 4
- B. 12
- C. 21
- D. 27

5.  $\frac{1}{5}$  kg of jelly powder is needed for making a cup of jelly. My mother has  $1\frac{7}{8}$  kg of jelly. How many cups of jelly can she make at most?

- A. 8
- B. 9
- C. 10
- D. 11

5. 做一杯啫喱需用  $\frac{1}{5}$  kg 啫喱粉。媽媽有  $1\frac{7}{8}$  kg 啫喱粉，最多可做啫喱多少杯？

- A. 8
- B. 9
- C. 10
- D. 11

6. There are 240 roses in a flower shop. 60% of them are red roses and 25% of the red roses are in bloom. How many red roses are not in bloom?

- A. 144
- B. 108
- C. 36
- D. 24

6. 花店有 240 枝玫瑰，紅玫瑰佔 60%，而紅玫瑰中已盛開的佔 25%，未盛開的紅玫瑰有多少枝？

- A. 144
- B. 108
- C. 36
- D. 24

**Leisure Book Store**  
**悠閒書店**

Atlas of China 中國地圖集	\$55.5
World Atlas 世界地圖集	\$105.9
Chinese Dictionary 中文字典	\$78.8

7. Edwin bought two world atlases and a Chinese dictionary at Leisure Book Store. When he was paying the bill with a \$500 note, the cashier told him that the world atlas was on sale and gave him \$248.6 change. How much was the world atlas cheaper?

- A. \$4.2
- B. \$19.6
- C. \$66.7
- D. \$86.3

7. 華洪在悠閒書店買了兩本世界地圖集和一本中文字典，並以一張\$500鈔票付款。店員告訴他該店的世界地圖集正以特價發售，因此找回\$248.6給他。世界地圖集的售價比原價便宜了多少？

- A. \$4.2
- B. \$19.6
- C. \$66.7
- D. \$86.3

8. A pack of 16 chicken wings sells for \$240. The average price of each chicken wing is more than that of each chicken leg by \$4. To buy two dozen chicken legs, how much should be paid?

- A. \$480
- B. \$354
- C. \$264
- D. \$144

8. 一包雞翼有16個，售價是\$240。每個雞翼的平均售價較每個雞腿的貴\$4。買兩打雞腿須付多少？

- A. \$480
- B. \$354
- C. \$264
- D. \$144

9. There are total 300 apples and pears in a fruit shop. When every 11 apples are packed into a bag, there are 15 bags with 5 apples left. If every 9 pears are packed into a bag, how many bags can be packed at most? How many pears will be left?

- A. 15 bags, with 5 pears left
- B. 14 bags, with 4 pears left
- C. 15 bags, with 0 pear left
- D. 14 bags, with 9 pears left

9. 水果店有300個蘋果和梨。蘋果每11個包裝成一袋，可包裝成15袋，餘下5個。如果每9個梨包裝成一袋，最多可包裝成多少袋？餘下梨多少個？

- A. 15袋，餘下5個
- B. 14袋，餘下4個
- C. 15袋，餘下0個
- D. 14袋，餘下9個

10. Mr Chan measured the time Harris used for completing experiment and the reading of the measuring tool was 50.800s. For the reading 50.800, which place values of '0' can be deleted?

- I. units
  - II. tenths
  - III. hundredths
  - IV. thousandths
- A. I and III only
  - B. I and IV only
  - C. II and III only
  - D. III and IV only

10. 陳老師為大洪量度完成實驗的時間，該量度工具顯示其讀數為50.800秒。在50.800這個讀數中，哪些位值的「0」可被刪掉？

- I. 個位
  - II. 十分位
  - III. 百分位
  - IV. 千分位
- A. 只有I及III
  - B. 只有I及IV
  - C. 只有II及III
  - D. 只有III及IV

11. Arrange the following three numbers from the largest to the smallest:

$$345\%, 3\frac{3}{8}, 3\frac{5}{12}$$

A.  $345\% > 3\frac{3}{8} > 3\frac{5}{12}$

B.  $345\% > 3\frac{5}{12} > 3\frac{3}{8}$

C.  $3\frac{5}{12} > 3\frac{3}{8} > 345\%$

D.  $3\frac{3}{8} > 345\% > 3\frac{5}{12}$

11. 把以下三個數由大至小排列：

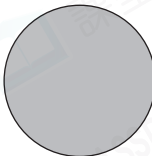
$$345\%、3\frac{3}{8}、3\frac{5}{12}$$

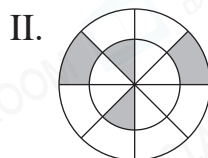
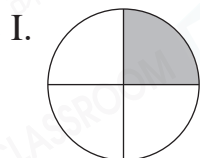
A.  $345\% > 3\frac{3}{8} > 3\frac{5}{12}$

B.  $345\% > 3\frac{5}{12} > 3\frac{3}{8}$

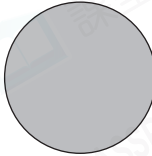
C.  $3\frac{5}{12} > 3\frac{3}{8} > 345\%$

D.  $3\frac{3}{8} > 345\% > 3\frac{5}{12}$

12. If  represents 1, which of the following figures with the shaded part represent the value of 25%?



- A. I and III only  
 B. II and III only  
 C. I and II only  
 D. I, II and III

12. 如果每個  代表 1，下列哪些圖形的陰影部分所代表的值是 25%？

- A. 只有 I 及 III  
 B. 只有 II 及 III  
 C. 只有 I 及 II  
 D. I、II 及 III

13. There were 50 ships in the pier, 35 of them were cargo ships, and 40% of the remaining ships were passenger ships. What was the percentage of the passenger ships to all ships in the pier?

- A. 12%
- B. 17%
- C. 25%
- D. 40%

13. 碼頭有 50 艘船，其中 35 艘是貨船，餘下的 40% 是客船。客船佔全部船的百分之幾？

- A. 12%
- B. 17%
- C. 25%
- D. 40%

14. A piece of ribbon was  $2\frac{3}{5}$  m long, Anna cut  $\frac{3}{4}$  m. How much more should she cut in order to reduce the ribbon to half of the original length?

- A.  $1\frac{17}{20}$  m
- B.  $1\frac{1}{10}$  m
- C.  $\frac{11}{20}$  m
- D.  $\frac{3}{20}$  m

14. 一卷絲帶原來長  $2\frac{3}{5}$  m，曉彤剪去  $\frac{3}{4}$  m。她應再剪多少，才能使絲帶減至原來的一半？

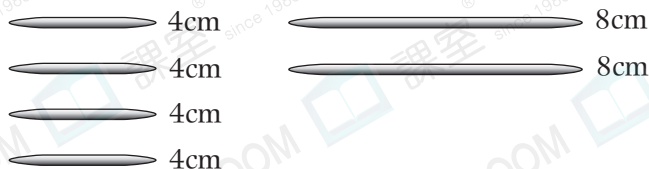
- A.  $1\frac{17}{20}$  m
- B.  $1\frac{1}{10}$  m
- C.  $\frac{11}{20}$  m
- D.  $\frac{3}{20}$  m

15. Which of the following is the common property of squares, rectangles and rhombuses?

- A. four angles are equal
- B. four sides are equal
- C. opposite sides are equal
- D. there is at least a right angle

15. 正方形、長方形和菱形有以下哪一種共同性質？

- A. 四角相等
- B. 四邊相等
- C. 對邊相等
- D. 最少有一個直角



**16.** If all of the above six sticks are used together to form a 2-D shape, which of the following 2-D shapes can be formed?

- I. trapezium
  - II. rhombus
  - III. isosceles triangle
- A. I and II only
  - B. I and III only
  - C. II and III only
  - D. I, II and III

**16.** 如果同時使用以上的六枝竹簽去組成一個平面圖形，可以組成以下哪些平面圖形？

- I. 梯形
  - II. 菱形
  - III. 等腰三角形
- A. 只有 I 及 II
  - B. 只有 I 及 III
  - C. 只有 II 及 III
  - D. I、II 及 III

**17.** Joanne drew a straight line on a rhombus and 2 trapeziums were obtained. Which descriptions in the following must be correct?

- I. The perimeters of two trapeziums were equal.
  - II. There was at least one acute angle in each trapezium.
  - III. There was at least one obtuse angle in each trapezium.
- A. I and II only
  - B. I and III only
  - C. II and III only
  - D. I, II and III

**17.** 琳琳在一個菱形上畫一條直線，得出兩個梯形。下列哪些描述必定正確？

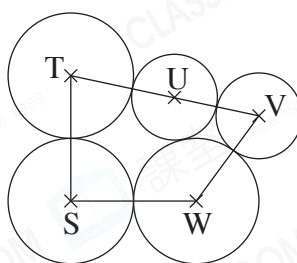
- I. 兩個梯形的周界相等。
  - II. 每個梯形都最少有一個銳角。
  - III. 每個梯形都最少有一個鈍角。
- A. 只有 I 及 II
  - B. 只有 I 及 III
  - C. 只有 II 及 III
  - D. I、II 及 III

18. Ray is 80m to the south of Charles. Ava is 80m to the east of Ray. In which direction is Charles from Ava?

- A. southwest
- B. northwest
- C. southeast
- D. northeast

18. 伍鑫在卓雲的南方80m，花婷在伍鑫的東方80m，卓雲在花婷的哪一方？

- A. 西南
- B. 西北
- C. 東南
- D. 東北



19. In the above figure, there are 3 big circles of the same size and 2 small circles of the same size. S, T, U, V and W are the centres of these 5 circles. The lengths of ST and TV are 20cm and 22cm respectively. What is the diameter of a small circle?

- A. 10cm
- B. 8cm
- C. 5cm
- D. 4cm

19. 上圖中，有三個大小相同的大圓和兩個大小相同的小圓。S、T、U、V和W是這五個圓的圓心。ST和TV的長度分別是20cm和22cm。一個小圓的直徑是多少？

- A. 10cm
- B. 8cm
- C. 5cm
- D. 4cm

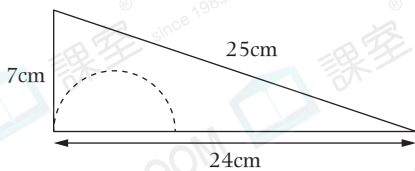


Figure 1  
圖一

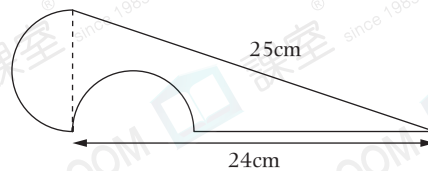


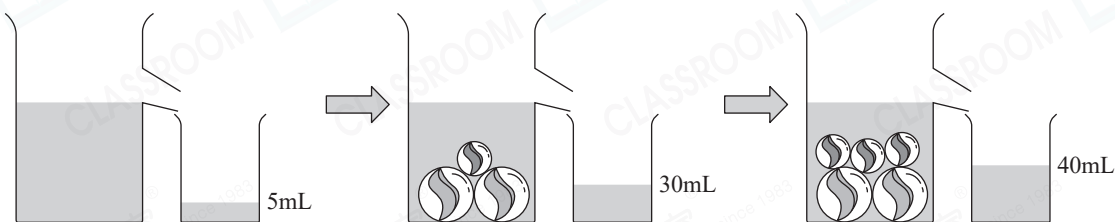
Figure 2  
圖二

20. A semi-circle is cut along the dotted line by Keith from a piece of triangular paper as shown in Figure 1. It is then formed into a new figure as shown in Figure 2. What is the perimeter of Figure 2? (Take  $\pi$  as  $\frac{22}{7}$ )

- A. 86cm
- B. 71cm
- C. 64cm
- D. 60cm

20. 家豪從圖一的三角形手工紙沿虛線剪出一個半圓形，然後拼合成一個新圖形，如圖二所示。圖二的周界是多少？(取 $\pi$ 為 $\frac{22}{7}$ )

- A. 86cm
- B. 71cm
- C. 64cm
- D. 60cm

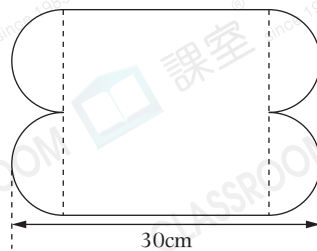


21. According to the above diagrams, what is the volume of each larger marble?

- A.  $5\text{cm}^3$
- B.  $10\text{cm}^3$
- C.  $15\text{cm}^3$
- D.  $20\text{cm}^3$

21. 根據上圖，每粒大波子的體積是多少？

- A.  $5\text{cm}^3$
- B.  $10\text{cm}^3$
- C.  $15\text{cm}^3$
- D.  $20\text{cm}^3$

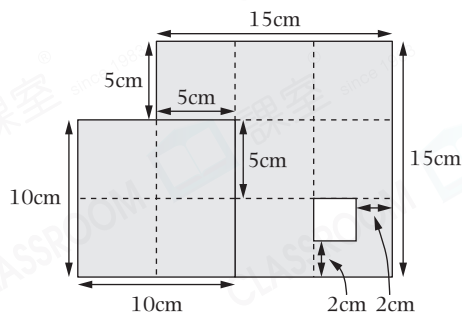


22. The above figure is formed by a square and four semi-circles of the same size. What is the area of the figure? (Take  $\pi$  as 3.14)

- A.  $157\text{cm}^2$
- B.  $400\text{cm}^2$
- C.  $557\text{cm}^2$
- D.  $1028\text{cm}^2$

22. 上圖是由一個正方形和四個大小相同的半圓組成，這個圖形的面積是多少？(取 $\pi$ 為3.14)

- A.  $157\text{cm}^2$
- B.  $400\text{cm}^2$
- C.  $557\text{cm}^2$
- D.  $1028\text{cm}^2$

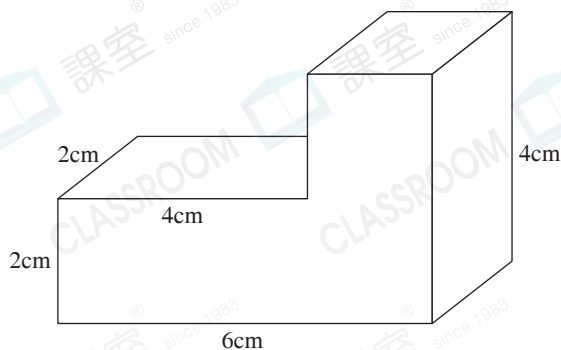


23. Two squares are put together. Parts of them are overlapped and a white part is cut away, as shown above. What is the area of the shaded part?

- A.  $325\text{cm}^2$
- B.  $275\text{cm}^2$
- C.  $271\text{cm}^2$
- D.  $266\text{cm}^2$

23. 將兩個正方形放在一起，其中部分重疊，並剪去白色部分，如上圖所示。陰影部分的面積是多少？

- A.  $325\text{cm}^2$
- B.  $275\text{cm}^2$
- C.  $271\text{cm}^2$
- D.  $266\text{cm}^2$

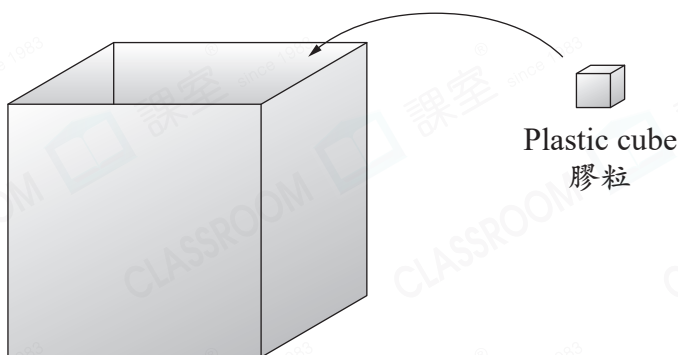


24. What is the volume of the above solid?

- A.  $32\text{cm}^3$
- B.  $34\text{cm}^3$
- C.  $36\text{cm}^3$
- D.  $38\text{cm}^3$

24. 上圖立體的體積是多少？

- A.  $32\text{cm}^3$
- B.  $34\text{cm}^3$
- C.  $36\text{cm}^3$
- D.  $38\text{cm}^3$



25. The above figure shows a cubic box of capacity 8L. 100 plastic cubes each of side 2cm have already been in the box. How many more cubes are needed to just fill up the box?

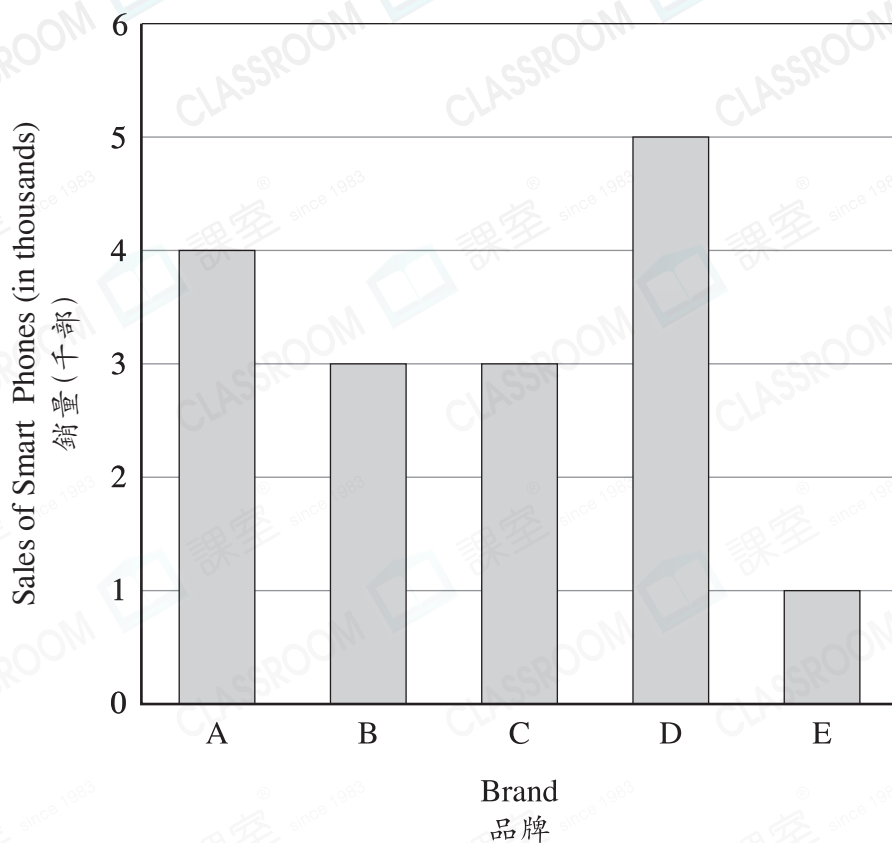
- A. 0
- B. 100
- C. 900
- D. 1000

25. 上圖展示了一個容量是8L的正方體盒子，盒子中已有100粒正方體膠粒，每粒的邊長是2cm，現還須放進多少粒才能剛好將盒子完全填滿？

- A. 0
- B. 100
- C. 900
- D. 1000

### Sales of Smart Phones in the First Half Year

#### 上半年各款智能手機的銷量



26. According to above graph, which two brands of smart phones have the difference of 3000 in sales?

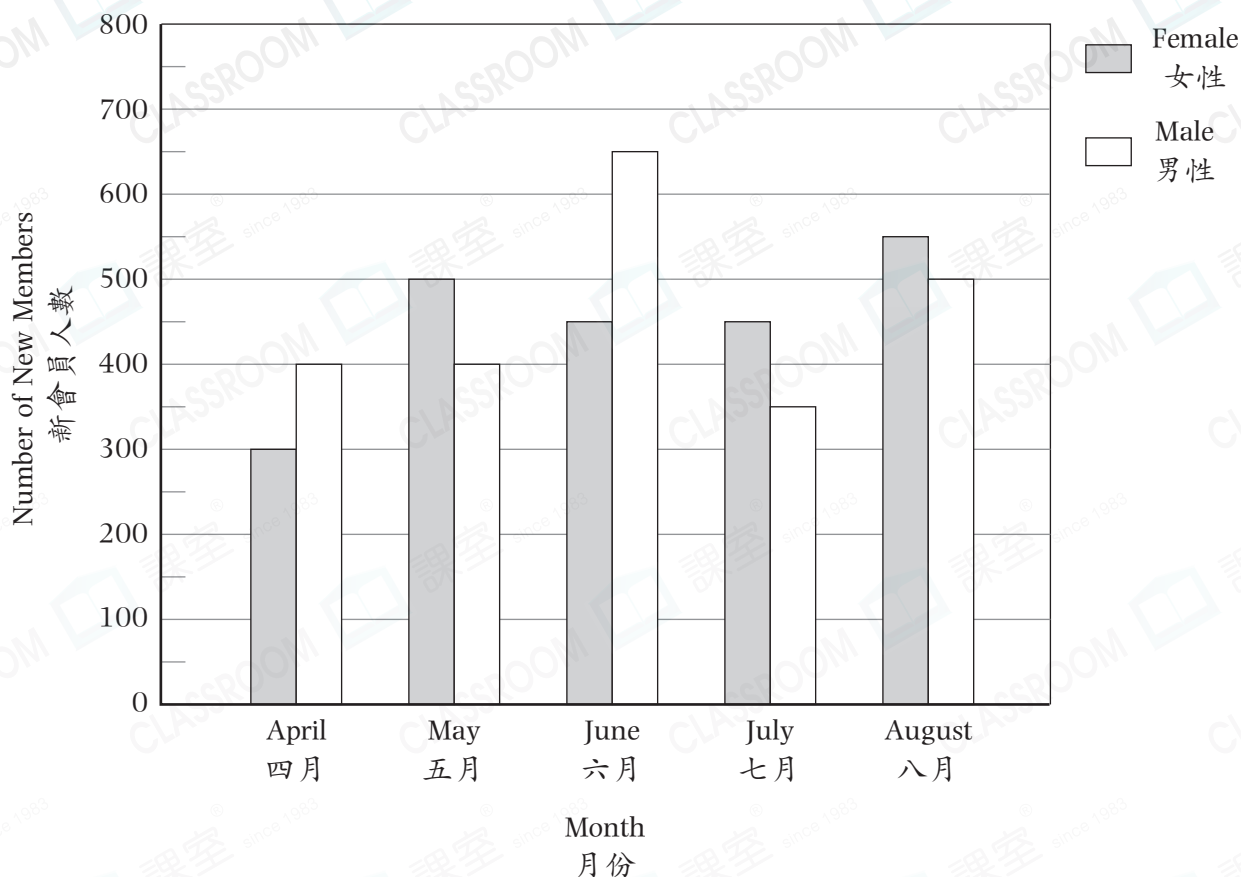
- A. brand A and brand B
- B. brand A and brand E
- C. brand B and brand D
- D. brand D and brand E

26. 根據上圖，哪兩個品牌的智能手機銷量相差3000部？

- A. 品牌A和品牌B
- B. 品牌A和品牌E
- C. 品牌B和品牌D
- D. 品牌D和品牌E

Number of New Members of a Fitness Club in the Past Five Months

某健身俱樂部過去五個月的新會員人數



27. The above graph showed the number of new members of a fitness club in the past five months. Which month's total number of new members was exactly 1.5 times that of new members in April?

- A. May
- B. June
- C. July
- D. August

27. 上圖是過去五個月某健身俱樂部的新會員人數。哪一個月新會員的總人數剛好是四月的1.5倍？

- A. 五月
- B. 六月
- C. 七月
- D. 八月

28. In a test, Andy got 74 marks, Andrew got 80 marks and Janice got 92 marks. The average score of these three students and Carrie was 84.5 marks. How many marks did Carrie get?

- A. 92
- B. 88
- C. 82
- D. 81

28. 在一次測驗中，安迪得74分，安齊得80分，麗斯得92分。嘉莉和他們三人的平均分是84.5分。嘉莉得多少分？

- A. 92
- B. 88
- C. 82
- D. 81

29. Maggie has  $p$  candies. Mark has 15 candies, which is 3 times that of Maggie. Which of the following equations can be used to find the number of Maggie's candies?

- A.  $\frac{p}{3} = 15$
- B.  $3p = 15$
- C.  $3 + p = 15$
- D.  $p - 15 = 3$

29. 美琪有 $p$ 顆糖果。銘恆有15顆糖果，數量是美琪的3倍。下列哪一道方程可找出美琪的糖果數量？

- A.  $\frac{p}{3} = 15$
- B.  $3p = 15$
- C.  $3 + p = 15$
- D.  $p - 15 = 3$

30. If  $68x - 12 = 192$ , then  $\frac{x}{9} = ?$

- A. 27
- B. 12
- C. 3
- D.  $\frac{1}{3}$

30. 如果  $68x - 12 = 192$ ，那麼  $\frac{x}{9} = ?$

- A. 27
- B. 12
- C. 3
- D.  $\frac{1}{3}$

End of Section A

甲部完

## SECTION B (40 marks)

Working steps must be shown in answering questions in this section unless specified otherwise.

## 乙部 (40分)

除特別指明外，在回答本部問題時，須列出計算步驟。

31. The following table shows the number of fruit Candy's mother bought.

Fruit 水果	Pear 梨	Orange 橙	Mango 芒果	Apple 蘋果
Number of fruit 水果數量(個)	6	4	3	7

(a) What percentage of the total number of fruit is the number of the apples? [4 marks]

(b) Candy believes that when 1 of each type of fruits is eaten, there will be no change in percentage of the number of the apples. Do you agree with her? Explain your conclusion. [4 marks]

31. 下表顯示美兒媽媽購買水果的數量。

(a) 蘋果的數量佔水果總數量的百分之幾? [4分]

(b) 美兒認為當每種水果都吃了一個後，蘋果數量的百分數並沒有改變，你同意嗎？試解釋你的結論。 [4分]

32. Nancy has 32 books.  $\frac{1}{4}$  of the books are novels and  $\frac{3}{8}$  of the books are magazines. Half of the remaining books are atlases and the other half are biographies.

(a) What fraction of the books are novels and magazines? (Give the answer only) [2 marks]

(b) How many biographies does Nancy have? (Give the answer only) [2 marks]

32. 惠珊有32本書籍，其中 $\frac{1}{4}$ 是小說， $\frac{3}{8}$ 是雜誌，餘下的書籍中，一半是地圖集，另一半是傳記。

(a) 小說和雜誌佔書籍的幾分之幾？(只須寫出答案) [2分]

(b) 惠珊有傳記多少本？(只須寫出答案) [2分]

### Table of Price 價目表

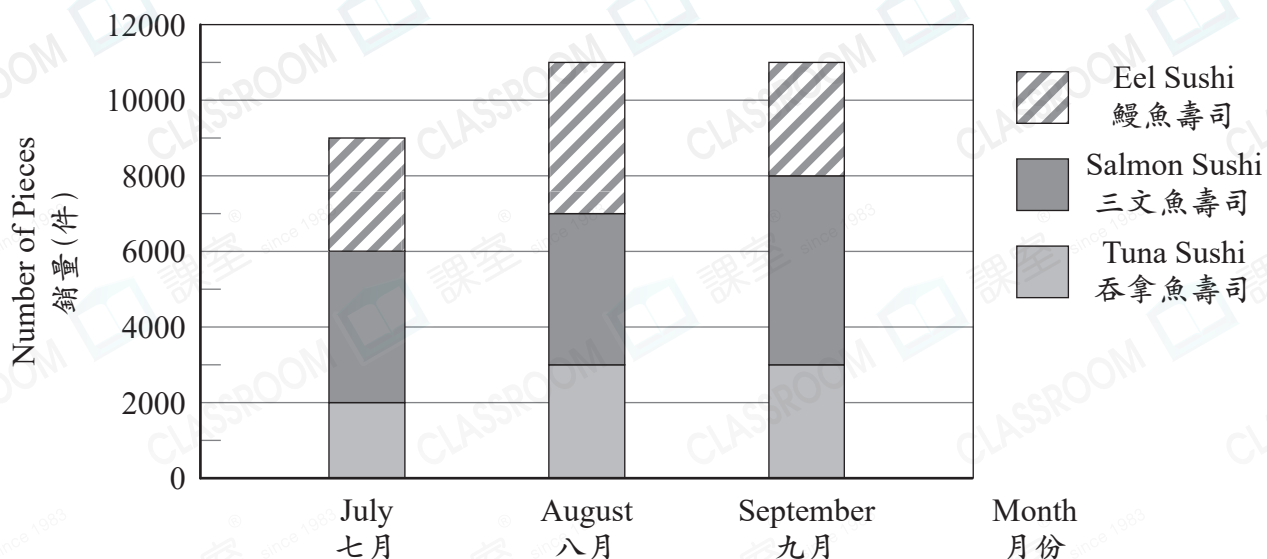
Model Toolkit 模型工具箱	\$147.5
Model car 模型車	\$50.9

33. Mr Wong wants to buy some toys for two sons as Christmas gifts. If each of them would get 1 model toolkit and 3 model cars, according to the above table, how much should Mr Wong pay? [4 marks]

33. 王先生打算購買玩具送給兩個兒子作聖誕禮物。若他們各得1個模型工具箱和3輛模型車，根據上表，王先生應付款多少？[4分]

Sales of Three Types of Sushi of a Sushi Bar

某壽司店三款壽司的銷量



34. (a) As in the graph above, what was the difference between the sales of tuna sushi in July and in August? (Give the answer only) [2 marks]

34. (a) 七月和八月吞拿魚壽司的銷量相差多少？(只須寫出答案) [2分]

Type of Sushi 壽司款式	Eel Sushi 鰻魚壽司	Salmon Sushi 三文魚壽司	Tuna Sushi 吞拿魚壽司
Old Price 舊售價	\$7	\$12	\$14
New Price 新售價	\$10	\$15	\$12

- (b) The Sushi Bar adjusted the prices of sushi in September. According to the graph and the above table, what was the total income of the Sushi Bar in September? [4 marks]

- (b) 壽司店於九月調整壽司的售價，根據統計圖及上表，壽司店九月的總收入是多少？ [4分]

34. (c) Amy believed that after adjusting the prices of sushi, the income of selling eel sushi in September would be decreased when compared with that in August. Do you agree with her? Explain. [4 marks]

34. (c) 學兒認為調整了壽司售價後，九月售出鰻魚壽司的收入會比八月的減少。你同意嗎？試解釋。 [4分]

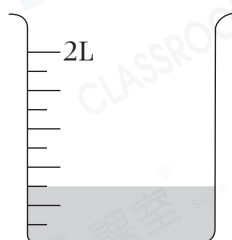


Figure 1  
圖一

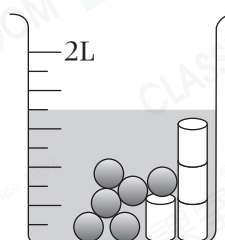


Figure 2  
圖二

35. Figure 1 shows a container holding some water. When 6 marbles and 4 cylinders are put into the container, the water level in the container rises as shown in Figure 2.

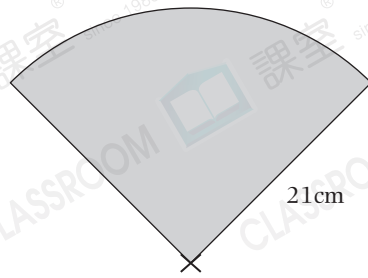
35. 圖一所示為一個盛了水的容器，把6粒波子和4個圓柱放進這容器內，水位上升了，如圖二所示。

(a) What is the total volume of the 6 marbles and 4 cylinders? (Give the answer only) [2 marks]

(a) 6粒波子和4個圓柱的總體積是多少？(只須寫出答案) [2分]

(b) It is given that the total volume of the 4 cylinders is  $560\text{cm}^3$ . If the volume of each marble is  $x\text{ cm}^3$ , what is the volume of a marble? (Use equation to solve the problem and show your working) [4 marks]

(b) 已知4個圓柱的總體積是  $560\text{cm}^3$ ，如果每粒波子的體積都是  $x\text{ cm}^3$ ，那麼一粒波子的體積是多少？(須用方程列式計算，並展示步驟) [4分]



36. (a) In the Lucky Craft Shop, the clerk used a quarter of a circular cardboard to make a decorative painting, as shown above. The radius of the cardboard is 21cm. What is the perimeter of the above figure? (Take  $\pi$  as  $\frac{22}{7}$ ) [4 marks]

- (b) It takes  $2\frac{2}{5}$  hours to make a decorative painting. How many decorative paintings can be made in 12 hours at most? (Give the answer only) [2 marks]

- (c) Edwin orders a decorative painting which costs \$150 in the Lucky Craft Shop. The shop adds 8% design fee. After adding the design fee, how much should Edwin pay? (Give the answer only) [2 marks]

36. (a) 在好運手工店，店員用一張圓形卡紙的四分之一製作裝飾畫，如上圖所示。卡紙的半徑是21cm，上圖的周界是多少？(取 $\pi$ 為 $\frac{22}{7}$ ) [4分]

- (b) 製作一幅裝飾畫需要 $2\frac{2}{5}$ 小時，在12小時內，最多可製作裝飾畫多少幅？(只須寫出答案) [2分]

- (c) 子諾在好運手工店訂制了一幅售價是\$150的裝飾畫。該店須加收8%的設計費。加上設計費後，子諾須付款多少？(只須寫出答案) [2分]