

HONG KONG ATTAINMENT TEST

香港學科測驗

Pre-Secondary One

中一入學前

**Mathematics**

**數學**

Mock Paper 6

模擬試卷(六)

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. The number of members of an online store is 300 000 when corrected to the nearest hundred thousand and 250 000 when corrected to the nearest ten thousand. Which of the following could be a possible number of members of this online store?

- A. 260 800
- B. 257 900
- C. 254 600
- D. 248 500

1. 某網店的會員人數取近似值至十萬位後為300 000，以及取近似值至萬位後為250 000。以下哪一項可能是該網店的會員人數？

- A. 260 800
- B. 257 900
- C. 254 600
- D. 248 500

2. All factors of  $G$  are:

1, 5, 23,  $G$

Which of the following is a multiple of  $G$ ?

- A. 230
- B. 125
- C. 92
- D. 46

2.  $G$ 的所有因數是：

1、5、23、 $G$

以下哪一個是 $G$ 的倍數？

- A. 230
- B. 125
- C. 92
- D. 46

3. If  $\frac{M}{16}$  is converted into percentage, it is between 56% and 66%. Which of the following is the possible value of  $M$ ?

- A. 7
- B. 9
- C. 11
- D. 13

3. 若把  $\frac{M}{16}$  化為百分數，該百分數會介乎 56% 和 66% 之間。下列哪一個數可能是  $M$  的值？

- A. 7
- B. 9
- C. 11
- D. 13

4. If  $\frac{\triangle}{12} - \frac{1}{4} = 0$ , then  $\triangle = ?$

- A. 0
- B. 1
- C. 3
- D. 4

4. 如果  $\frac{\triangle}{12} - \frac{1}{4} = 0$ ，那麼， $\triangle = ?$

- A. 0
- B. 1
- C. 3
- D. 4

5. John spent \$23.5 every day. How much did he spend from 5<sup>th</sup> March to 18<sup>th</sup> March?

- A. \$282
- B. \$305.5
- C. \$329
- D. \$352.5

5. 子軒每天用去 \$23.5，由 3 月 5 日至 3 月 18 日，他共用了多少？

- A. \$282
- B. \$305.5
- C. \$329
- D. \$352.5



6. In the above figure, how much water is there in the container?

- A. 7L
- B. 7.5L
- C. 8L
- D. 8.75L

6. 在上圖，容器中有水多少？

- A. 7L
- B. 7.5L
- C. 8L
- D. 8.75L

7. Two cans of tea weigh 806g in total. If 138g of tea from Can A is put into Can B, the weights of tea in the two cans are the same. What is the original weight of tea in Can B?

- A. 541g
- B. 472g
- C. 403g
- D. 265g

7. 兩罐茶葉共重 806g。如果從甲罐中取 138g 茶葉放到乙罐，兩罐茶葉的重量便相等。乙罐茶葉原來重多少？

- A. 541g
- B. 472g
- C. 403g
- D. 265g

8. Which of the following has the smallest value?

- A.  $154 \times 0.49$
- B.  $183 \times 0.32$
- C.  $15.4 \times 49$
- D.  $18.3 \times 32$

8. 下列哪一項的值最小？

- A.  $154 \times 0.49$
- B.  $183 \times 0.32$
- C.  $15.4 \times 49$
- D.  $18.3 \times 32$

9. The monthly salary of Joyce was \$8500 last month. This month she gets an increase of  $\frac{1}{20}$  in salary. If she spends  $\frac{2}{5}$  of her salary this month to buy a camera, what is the price of the camera?

- A. \$425
- B. \$1780
- C. \$3400
- D. \$3570

9. 曉思上月的月薪是\$8500，她本月加薪 $\frac{1}{20}$ 。如果本月她用月薪的 $\frac{2}{5}$ 購買一部相機，這部相機的售價是多少？

- A. \$425
- B. \$1780
- C. \$3400
- D. \$3570

10. My mother bought  $4\frac{1}{2}$  kg of beef and  $2\frac{1}{8}$  kg of pork. She used  $3\frac{1}{4}$  kg of meat to make meatballs. How much meat was left?

- A.  $3\frac{3}{8}$  kg
- B.  $2\frac{7}{8}$  kg
- C.  $2\frac{3}{4}$  kg
- D.  $2\frac{3}{8}$  kg

10. 媽媽買了 $4\frac{1}{2}$  kg牛肉和 $2\frac{1}{8}$  kg豬肉，她用了 $3\frac{1}{4}$  kg肉來做肉丸，還剩肉多少？

- A.  $3\frac{3}{8}$  kg
- B.  $2\frac{7}{8}$  kg
- C.  $2\frac{3}{4}$  kg
- D.  $2\frac{3}{8}$  kg

11.  $8\frac{3}{4}$  L of water is poured into glasses of capacity of  $\frac{7}{10}$  L each. How many glasses can be filled at most?

- A. 10
- B. 11
- C. 12
- D. 13

11. 有水 $8\frac{3}{4}$  L，最多可注滿容量各是 $\frac{7}{10}$  L的杯子多少個？

- A. 10
- B. 11
- C. 12
- D. 13

12. Leo had 30 candies. He gave 20% of them to Jenny and gave 50% of the remaining candies to Peter. How many candies did Leo still have?

- A. 15
- B. 12
- C. 9
- D. 3

12. 力弘有30顆糖果，他將其中的20%送給子淇，再將剩下部分的50%送給軒宇。力弘還有糖果多少顆？

- A. 15
- B. 12
- C. 9
- D. 3

Friendship Kitchenware Shop

友誼廚具店

Each bowl  
每個碗 \$15.20

Buy one bowl and get one extra piece of scrub sponge.

每購買一個碗，多送百潔布一塊。

13. Customers can get one piece of scrub sponge by every spending of \$40 in Friendship Kitchenware Shop. Lydia bought 6 bowls. How many pieces of scrub sponge did she get altogether?

- A. 2
- B. 3
- C. 8
- D. 9

13. 在友誼廚具店，顧客每消費滿\$40可獲百潔布一塊。樂怡買了6個碗，她共得百潔布多少塊？

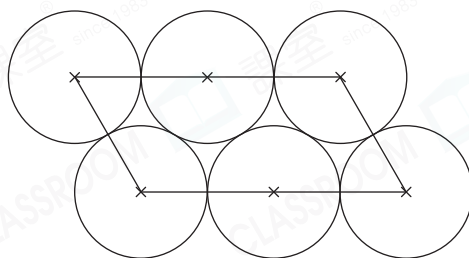
- A. 2
- B. 3
- C. 8
- D. 9

14. Each pencil box costs \$25 while each notebook costs \$12.8. Jimmy had \$120. After buying 2 notebooks, how many pencil boxes at most can he buy with the money left?

- A. 3
- B. 4
- C. 6
- D. 7

14. 筆盒每個售\$25，筆記簿每本售\$12.8。傑米有\$120，買了兩本筆記簿後，餘款最多可買筆盒多少個？

- A. 3
- B. 4
- C. 6
- D. 7

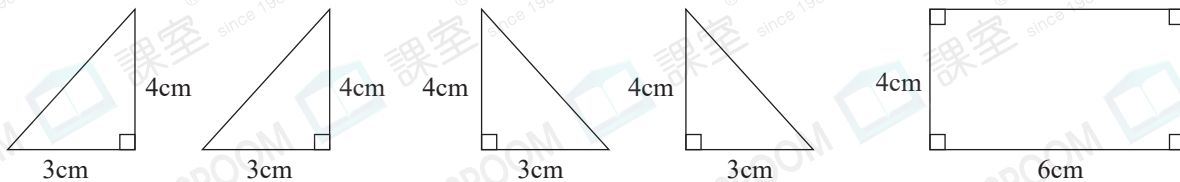


15. 6 circles of the same size are put together and a parallelogram is formed by joining all the centres of the circles, as shown above. If the diameter of each circle is 9cm, what is the perimeter of the parallelogram?

- A. 27cm
- B. 36cm
- C. 54cm
- D. 63cm

15. 把六個大小相同的圓拼砌，並把所有圓心連成一個平行四邊形，如上圖所示。如果每個圓的直徑是9cm，平行四邊形的周界是多少？

- A. 27cm
- B. 36cm
- C. 54cm
- D. 63cm



16. Which of the following figures can be formed by using all of the 5 figures above?

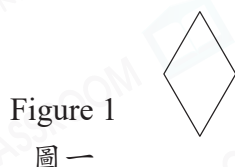
- I. square
- II. triangle
- III. parallelogram

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

16. 同時使用以上五個圖形，可組成以下哪些圖形？

- I. 正方形
- II. 三角形
- III. 平行四邊形

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

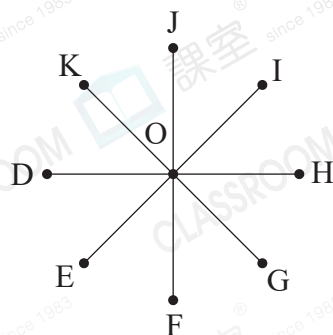


17. Figure 1 is a rhombus. Figure 2 is formed by a rhombus and four squares of the same size. They are both shapes having axial symmetry. How many axes of symmetry do they have?

- |    | Figure 1 | Figure 2 |
|----|----------|----------|
| A. | One      | One      |
| B. | Two      | Two      |
| C. | Two      | Four     |
| D. | Four     | Four     |

17. 圖一是一個菱形。圖二是由一個菱形和四個大小相同的正方形組成。它們都是軸對稱圖形。它們有對稱軸多少條？

- |    | 圖一 | 圖二 |
|----|----|----|
| A. | 1  | 1  |
| B. | 2  | 2  |
| C. | 2  | 4  |
| D. | 4  | 4  |

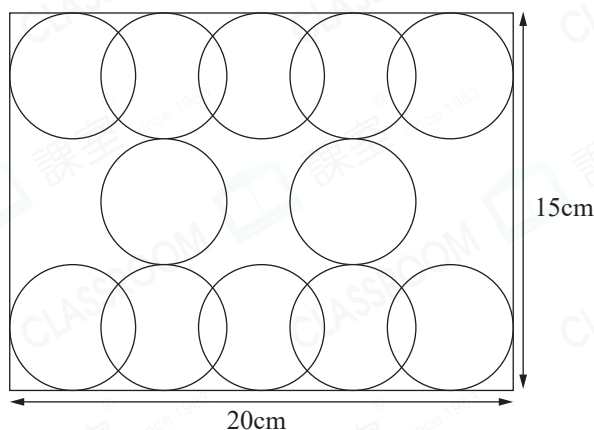


18. If I is northwest of E, what direction is G from K?

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

18. 如果I在E的西北方，G在K的哪一方？

- A. 西北
- B. 西南
- C. 東北
- D. 東南

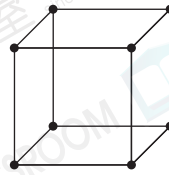
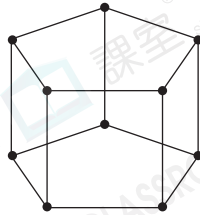


19. There are 12 circles of the same size inside the rectangle, as shown above. What is the radius of each circle?

- A. 5cm
- B. 4cm
- C. 2.5cm
- D. 2cm

19. 長方形內有12個大小相同的圓，如上圖所示。每個圓的半徑是多少？

- A. 5cm
- B. 4cm
- C. 2.5cm
- D. 2cm



20. The above two prisms are formed by plastic sticks of the same length and plastic beads. By using all plastic sticks and plastic beads, how many quadrilateral pyramids can be formed at most?

A. 2

B. 3

20. 上圖的兩個角柱由長度相同的膠棒及膠珠組成，用所有膠棒和膠珠，最多可組成四角錐多少個？

C. 4

D. 5

21. Joe took part in the 25km bicycle race. In the first 22 minutes, he rode at an average speed of 30km/h. Then, due to the rain, he stopped after riding another 5km. At that time, what was the distance from his location to the finishing line?

A. 14km

B. 11km

C. 9km

D. 2km

21. 天樂參加 25km 單車比賽。他首先以 30km/h 的平均速率騎行了 22 分鐘。由於下雨，他再騎行 5km 便停下來。在那時，他的位置到終點的路程是多少？

A. 14km

B. 11km

C. 9km

D. 2km

22. Danny had a piece of string of 120cm long. He used part of the string to form a square of side 8cm, then used the string left to form a rectangle of 16cm wide. What was the length of the rectangle?

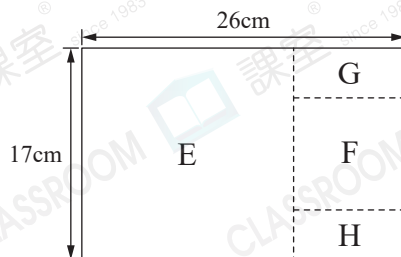
A. 28cm

B. 14cm

22. 迪奇有一條長 120cm 的繩子，他用部分繩子圍了一個邊長 8cm 的正方形後，用餘下的繩子圍成一個闊 16cm 的長方形。這個長方形的長是多少？

C. 12cm

D. 8cm

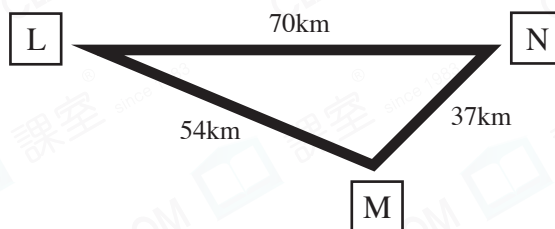


23. In the above figure, E and F are two squares of different sizes while G and H are two rectangles of the same size. What is the area of H?

- A.  $36\text{cm}^2$
- B.  $72\text{cm}^2$
- C.  $81\text{cm}^2$
- D.  $442\text{cm}^2$

23. 上圖中，E和F是兩個大小不同的正方形，而G和H是兩個大小相同的長方形。H的面積是多少？

- A.  $36\text{cm}^2$
- B.  $72\text{cm}^2$
- C.  $81\text{cm}^2$
- D.  $442\text{cm}^2$

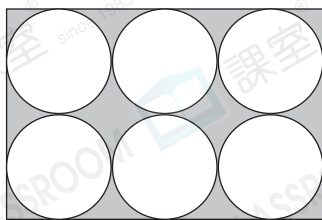


24. In the above figure, a taxi went to Shop N from Shop L directly at an average speed of  $50\text{km/h}$ . At the same time, a truck departed from Shop L to Shop N through Shop M. They reached Shop N at the same time. What was the average speed of the truck?

- A.  $1.4\text{km/h}$
- B.  $50\text{km/h}$
- C.  $65\text{km/h}$
- D.  $127.4\text{km/h}$

24. 上圖中，的士以平均速率  $50\text{km/h}$  由L店直接前往N店。同一時間，貨車從L店出發，經M店前往N店。它們同時到達N店，貨車的平均速率是多少？

- A.  $1.4\text{km/h}$
- B.  $50\text{km/h}$
- C.  $65\text{km/h}$
- D.  $127.4\text{km/h}$

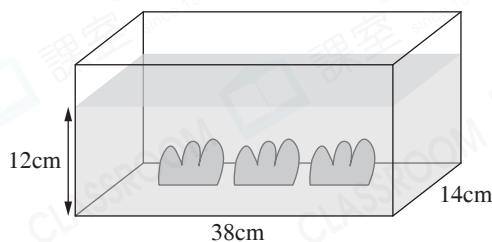


25. Henry fits 6 circles of the same size into a rectangle, as shown above. If the total circumference of the 6 circles is 264cm, what is the length of the rectangle? (Take  $\pi$  as  $\frac{22}{7}$ )

- A. 7cm
- B. 21cm
- C. 42cm
- D. 84cm

25. 小志把6個大小相同的圓放在一個長方形上，如上圖所示。如果這6個圓的圓周共長264cm，長方形的長是多少？(取 $\pi$ 為 $\frac{22}{7}$ )

- A. 7cm
- B. 21cm
- C. 42cm
- D. 84cm



26. After Kimmi took out three rockeries of the same volume from the tank shown in the above figure, the water level dropped by 4.5cm. What was the volume of a rockery?

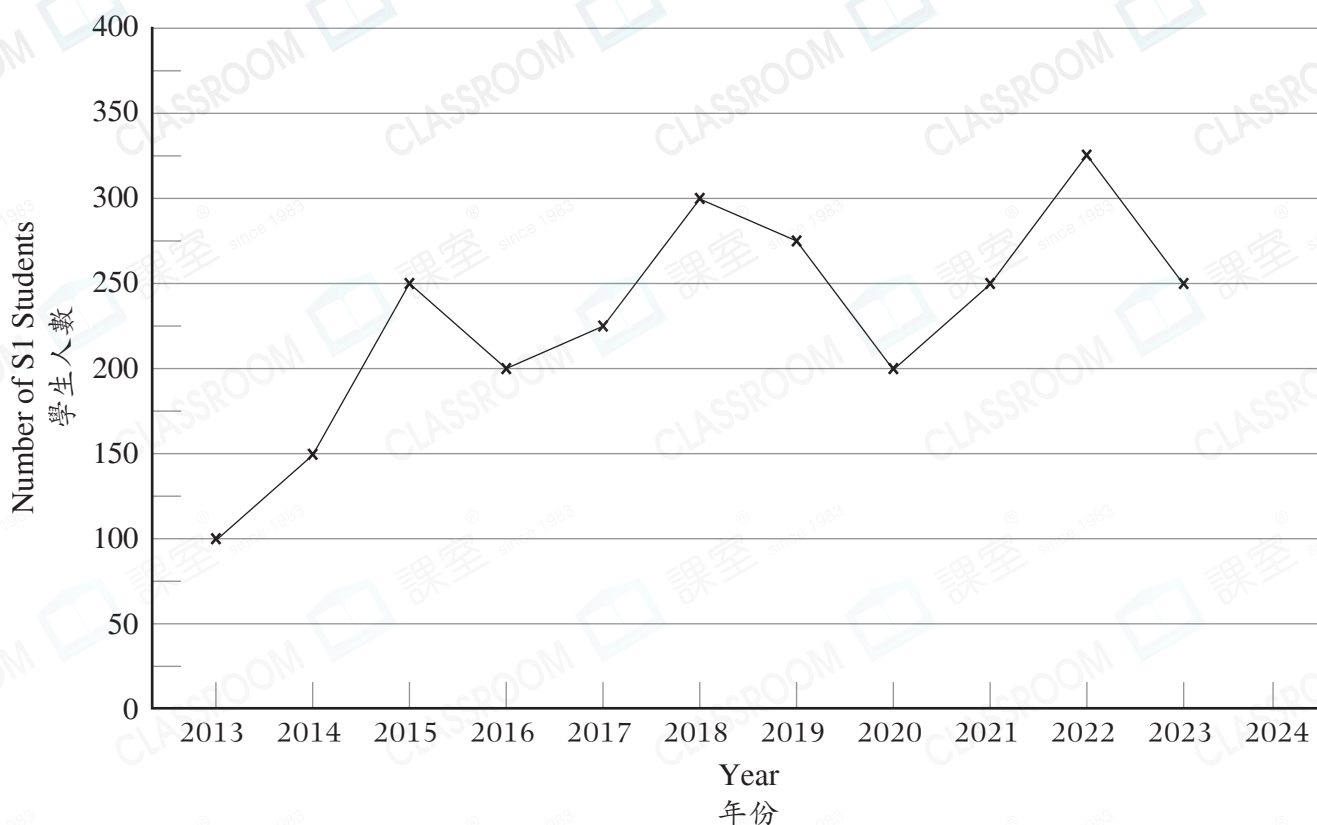
- A.  $6384\text{cm}^3$
- B.  $2394\text{cm}^3$
- C.  $1596\text{cm}^3$
- D.  $798\text{cm}^3$

26. 靜文從上圖的容器內取出三座體積相同的假山後，水位下降了4.5cm。每座假山的體積是多少？

- A.  $6384\text{cm}^3$
- B.  $2394\text{cm}^3$
- C.  $1596\text{cm}^3$
- D.  $798\text{cm}^3$

### Number of S1 Students of a School in the Past Twelve Years

#### 某學校過去十二年中一的學生人數



27. The headmaster wanted to use the above graph to show the number of S1 students of the school in the past twelve years. However, he forgot to indicate the number of S1 students of the school in 2024 in the graph. If the average number of S1 students of the top two years was 350, how many S1 students were there in 2024?

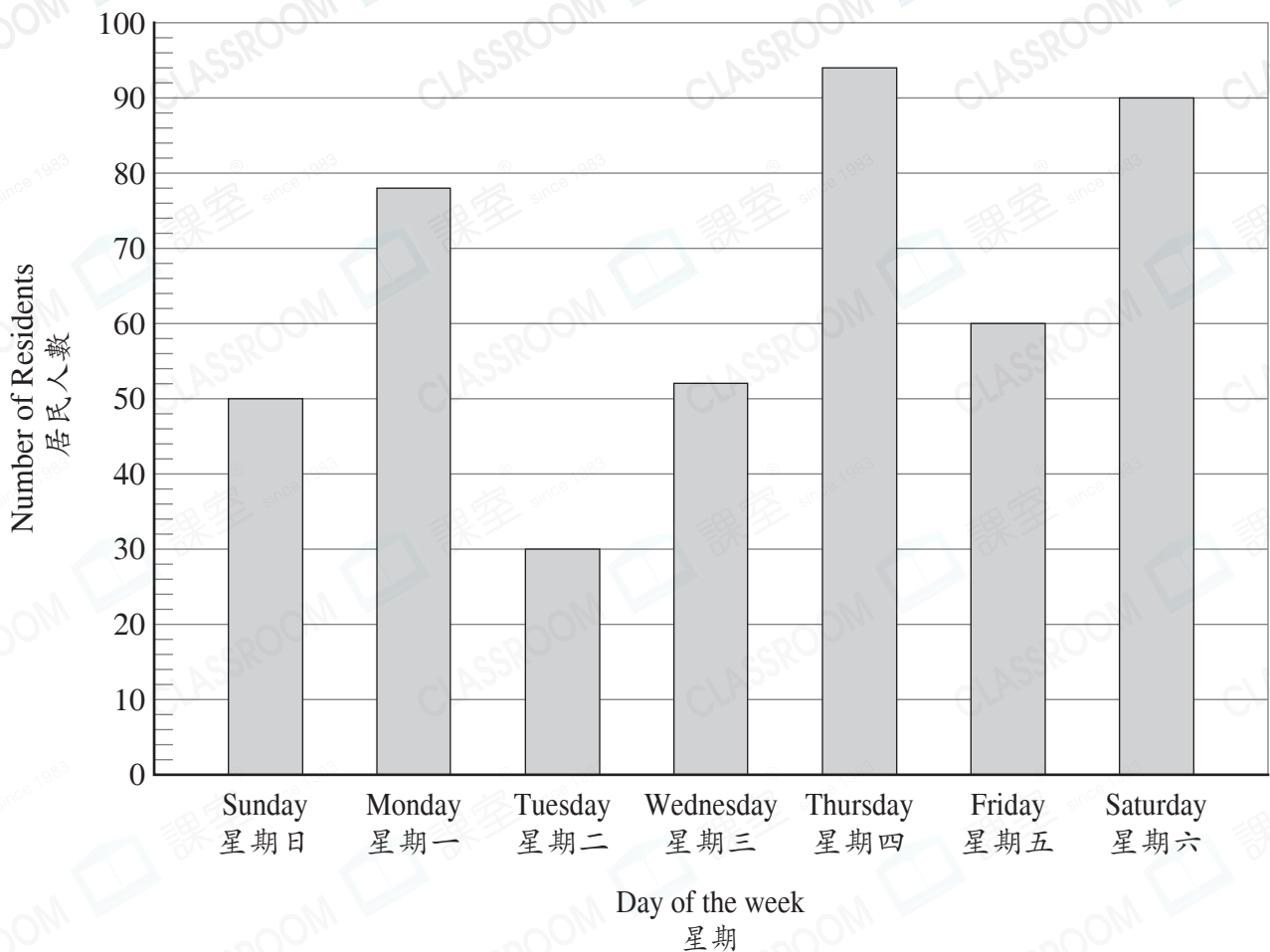
- A. 400
- B. 375
- C. 325
- D. 300

27. 校長嘗試用上圖來表示學校過去十二年中一的學生人數，但他忘記標示2024年中一的學生人數。如果最多中一學生的兩年的平均人數是350人，則2024年中一的學生人數是多少人？

- A. 400
- B. 375
- C. 325
- D. 300

## Number of Residents Using the Swimming Pool Last Week

### 上星期使用游泳池的居民人數



28. According to the above graph, on which two consecutive days was the difference of the number of residents using the swimming pool greater than 45?

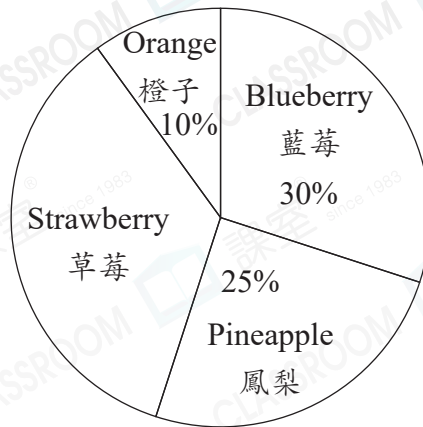
- A. Sunday and Monday
- B. Monday and Tuesday
- C. Wednesday and Thursday
- D. Thursday and Friday

28. 根據上圖，哪連續兩天使用游泳池的居民人數相差大於45？

- A. 星期日和星期一
- B. 星期一和星期二
- C. 星期三和星期四
- D. 星期四和星期五

## Number of Bottles of Jam Sold in a Shop

某店鋪售出果醬的瓶數



29. A shop sold 120 bottles of jam. According to the above chart, how many bottles of the two best-selling types of jam were sold in total?

- A. 66
- B. 72
- C. 78
- D. 90

29. 一間店鋪售出了120瓶果醬。根據以上圓形圖，最暢銷的兩種果醬共售出了多少瓶？

- A. 66
- B. 72
- C. 78
- D. 90

30. If  $\frac{y}{3} + 4 = 8$ , then  $\frac{2y}{3} = ?$

- A. 4
- B. 8
- C. 12
- D. 24

30. 如果  $\frac{y}{3} + 4 = 8$ ，那麼  $\frac{2y}{3} = ?$

- A. 4
- B. 8
- C. 12
- D. 24

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. (a) Paul spent  $x$  hours on photography course and 42 hours on part-time work every week. In last 15 weeks, he spent 750 hours in total on photography course and part-time work. How long did he spend on photography course every week? (Use equation to solve the problem and show working steps) [4 marks]

31. (a) 子聰每星期上攝影課  $x$  小時和做兼職 42 小時。過去 15 個星期，他共用了 750 小時上攝影課和做兼職。他每星期上攝影課用去多少時間？(須用方程列式計算，並展示步驟) [4分]

### Buying Photography Books Scheme 購買攝影書籍計劃

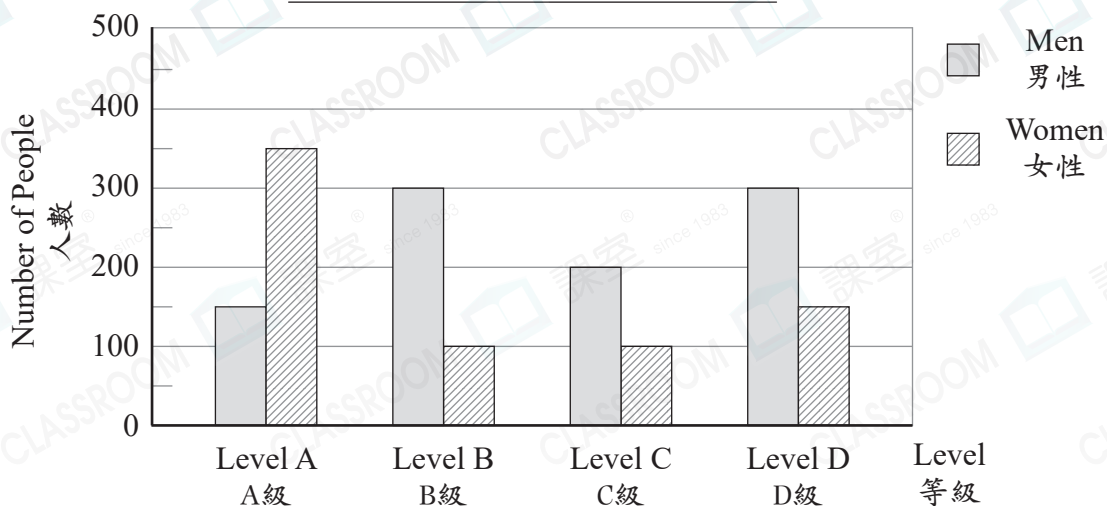
After the weekly part-time salary is deducted by \$2400, Paul will spend 40% of the remaining salary for buying photography books.  
從每星期的兼職工資減去 \$2400 後，子聰將餘下的兼職工資的 40% 用於購買攝影書籍。

- (b) Paul's weekly part-time salary is \$3350. He believed that more than \$400 from his weekly part-time salary would be used to buy photography books. Do you agree? Explain. [4 marks]

- (b) 子聰每星期的兼職工資是 \$3350。他認為自己每星期的兼職工資中將有多於 \$400 會用於購買攝影書籍。你同意嗎？試解釋。 [4分]

## Number of People Enrolled in Each Level of Programming Course

### 報名參加各級編程課程的人數



32. The above graph shows the number of people enrolled in each level of programming course.

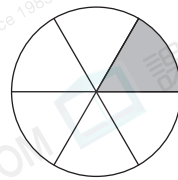
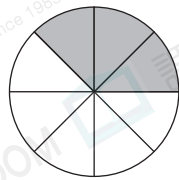
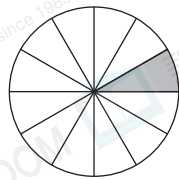
(a) Which level had the largest number of people enrolled in? How many people were there? (Give the answer only) [2 marks]

(b) After 150 more women enrolled in the same level, it is found that in that level, the number of women enrolled in changes from less than to more than the number of men enrolled in. Draw a bar representing the new number of people enrolled in the level on the answer sheet. [2 marks]

32. 上圖顯示報名參加各級編程課程的人數。

(a) 哪個等級的報名人數最多？共有多少人報名？（只須寫出答案） [2分]

(b) 某同一等級多 150 名女性報名後，發現該等級女性的報名人數，由原先比男性少，變為較多。在答題紙上畫出代表該等級新報名人數的棒條。 [2分]

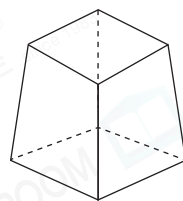
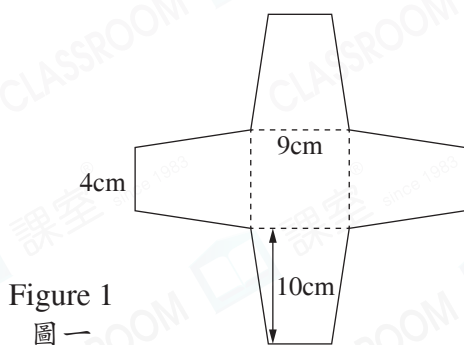


**33.** Jenny bought 3 circular cakes of the same size and cut them into equal portion by different methods as shown above.

- (a) The cakes eaten by Jenny have been shaded in the above figure.  
How many cakes did she eat?  
[4 marks]
- (b) The original price of each cake was \$168. Jenny bought the above cakes at a special offer of \$120.5 each. How much did she save in total?  
[4 marks]

**33.** 麗敏買了3個大小相同的圓形蛋糕。她用不同方法等分它們，如上圖所示。

- (a) 上圖陰影部分表示麗敏吃了的蛋糕，她共吃了蛋糕多少個？  
[4分]
- (b) 每個蛋糕的原價是\$168。麗敏以每個\$120.5的優惠價購買了以上蛋糕，她共節省了多少？  
[4分]



**34.** The plastic sheet in Figure 1 is formed by one square and four trapeziums of the same size and same shape. Nancy folded this plastic sheet into the container in Figure 2.

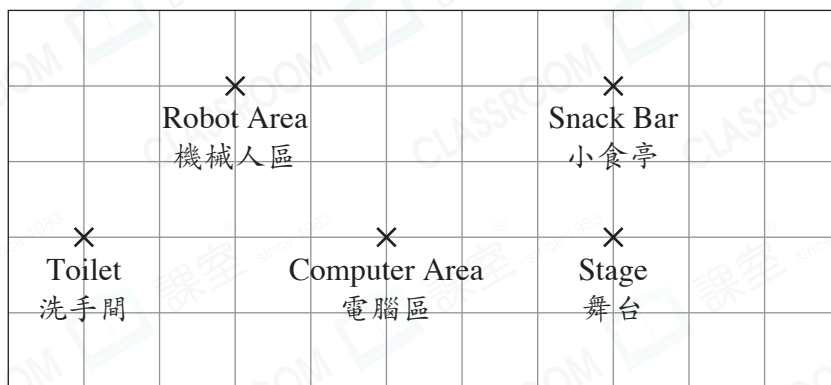
- (a) In Figure 1, what is the area of the plastic sheet?  
[4 marks]

**34.** 圖一的膠片是由一個正方形及四個大小和形狀相同的梯形組合而成。敏霞利用該膠片摺成圖二的容器。

- (a) 在圖一，膠片的面積是多少？  
[4分]

34. (b) In Figure 2, the capacity of the container is 240mL. If Nancy uses this kind of containers to hold 2L of milk, how many containers can be fully filled at most? (Give the answer only) [2 marks]

34. (b) 在圖二，這個容器的容量是 240mL。如果敏霞用這款容器去盛載 2L 的牛奶，她最多可盛滿容器多少個？(只須寫出答案) [2分]



35. (a) The Snack Bar is in the south of the Stage. Which direction is the Robot Area from the Computer Area? (Give the answer only) [2 marks]

35. (a) 小食亭在舞台的南方。機械人區在電腦區的哪一方？(只須寫出答案) [2分]

(b) Kate and 6 friends bought coffee in the Snack Bar. Each of them bought a bottle of coffee which costs \$16.8. How much should they pay in total? [4 marks]

(b) 心怡和 6 位朋友到小食亭購買咖啡。如果每人購買一瓶售價是 \$16.8 的咖啡，他們共須付款多少？ [4分]

(c) Jay got a raffle ticket in Robot Area. The number of the raffle ticket was a 2-digit number. The number was a multiple of 14 and divisible by 5. What was the number of that raffle ticket? (Give the answer only) [2 marks]

(c) 瑞明在機械人區獲得一張抽獎券。抽獎券的編號是一個兩位數。該數是 14 的倍數且可以被 5 整除。抽獎券的編號是多少？(只須寫出答案) [2分]

36. Figure 1 is the net of Figure 2.

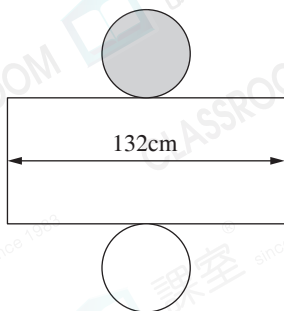


Figure 1  
圖一

- (a) What is the radius of the grey circle? (Take  $\pi$  as  $\frac{22}{7}$ ) [4 marks]

36. 圖一是圖二的摺紙圖樣。

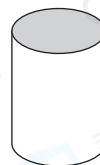


Figure 2  
圖二

- (a) 灰色圓的半徑是多少？  
(取  $\pi$  為  $\frac{22}{7}$ ) [4分]

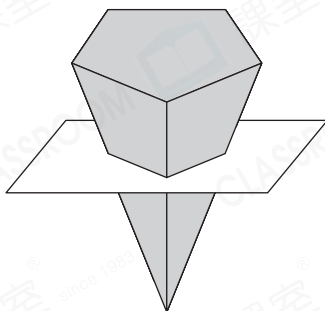


Figure 3  
圖三

- (b) As shown in Figure 3, a cross section being parallel to the base is cut from a pentagonal pyramid. What is the shape of this cross section? Is the shape and size of this cross section the same as that of the base? [2 marks]

- (b) 圖三所示，五角錐被切出一個平行於底的截面。這個截面是什麼形狀？它的形狀和大小是否與底相同？ [2分]