

HONG KONG ATTAINMENT TEST

香港學科測驗

Pre-Secondary One

中一入學前

Mathematics

數學

Mock Paper 5

模擬試卷(五)

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.5)

課室中一入學前數學科模擬試卷(小五)

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 actual population of City E is 2 846 489. When corrected to the nearest ten thousand, both the populations of City E and City F are the same. Which of the following numbers may be the actual population of City F?

- A. 2 761 765
- B. 2 837 669
- C. 2 851 771
- D. 2 856 999

1. 城市E的實際人口是2 846 489。當取近似值至萬位，城市E和城市F的人口一樣。下列哪一個數可能是城市F的實際人口？

- A. 2 761 765
- B. 2 837 669
- C. 2 851 771
- D. 2 856 999

2. The second multiple of H is $2H$. How many times of H is the sum of the first and the third multiples of H ?

- A. 5
- B. 4
- C. 3
- D. 2

2. H 的第二個倍數是 $2H$ 。那麼 H 的第一個和第三個倍數之和是 H 的多少倍？

- A. 5
- B. 4
- C. 3
- D. 2

3. If 66 is a common multiple of 6 and Δ , which of the following numbers can be Δ ?

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

3. 如果66是6和 Δ 的公倍數，以下哪一個數可能是 Δ ？

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

4. What is the result of adding up all the factors of 42?

- A. 120
- B. 96
- C. 79
- D. 54

4. 42的所有因數相加的結果是多少？

- A. 120
- B. 96
- C. 79
- D. 54

5. $\boxed{3} \boxed{6} \boxed{7} \boxed{\bigcirc}$ is a 4-digit number. The 4-digit number is a multiple of 2 and divisible by 3.

Which of the following may be $\boxed{\bigcirc}$?

- A. $\boxed{5}$
- B. $\boxed{4}$
- C. $\boxed{2}$
- D. $\boxed{0}$

5. $\boxed{3} \boxed{6} \boxed{7} \boxed{\bigcirc}$ 是一個四位數。這個四位數是2的倍數，並能被3整除。下列哪個可能是

$\boxed{\bigcirc}$?

- A. $\boxed{5}$
- B. $\boxed{4}$
- C. $\boxed{2}$
- D. $\boxed{0}$

6. The price of a stool is $\$72\frac{1}{2}$. One extra free stool will be given when buying 4 stools. The restaurant owner only needs 17 stools. How much should she pay at least?

- A. \$870
- B. \$1015
- C. \$1160
- D. \$1305

6. 一張凳的售價是 $\$72\frac{1}{2}$ ，購買4張可額外獲贈一張。餐廳老闆只需要17張凳，她最少須付多少？

- A. \$870
- B. \$1015
- C. \$1160
- D. \$1305

7. The school has 850 notebooks, $\frac{2}{5}$ of them are given to 17 classes equally. How many notebooks can each class get?

- A. 15
- B. 18
- C. 20
- D. 21

7. 學校有850本筆記簿，現將全部筆記簿的 $\frac{2}{5}$ 平均分給17班。每班可得筆記簿多少本？

- A. 15
- B. 18
- C. 20
- D. 21

8. Which of the following has the same value as 2.3×10.4 ?

- A. 0.23×10.4
- B. 0.23×1.04
- C. 2.3×104
- D. 23×1.04

8. 下列哪一項的值與 2.3×10.4 的值相同？

- A. 0.23×10.4
- B. 0.23×1.04
- C. 2.3×104
- D. 23×1.04



9. Using all the four cards above, Lily formed the largest number with two decimal places and the smallest number with one decimal place respectively. What was the difference between the two numbers she formed?

- A. 62.64
- B. 39.6
- C. 19.08
- D. 3.96

9. 利用以上全部的四張卡，立美分別拼出了一個最大的兩位小數和一個最小的一位小數，她所拼出的兩個數相差多少？

- A. 62.64
- B. 39.6
- C. 19.08
- D. 3.96

Purchase a Smart Phone
Enjoy Payment by Interest-Free Instalment
購買智能手機，享免息分期付款

- ◆ Plan X: 12 monthly instalments, \$285 for each instalment
計劃 X：分 12 期供款，每期月供 \$285
- ◆ Plan Y: 18 monthly instalments, [redacted] for each instalment
計劃 Y：分 18 期供款，每期月供 [redacted]

10. Walter and Kenny each bought a smart phone. Walter used Plan X and Kenny used Plan Y. How much more did Walter pay than Kenny in every instalment?

- A. \$95
- B. \$190
- C. \$200
- D. \$380

10. 華昇和建華各購買一部智能手機。華昇使用計劃 X，建華使用計劃 Y。華昇比建華每期多供款多少？

- A. \$95
- B. \$190
- C. \$200
- D. \$380

11. Jack had 30 tokens originally. He gave 7 tokens to Wilson and used 11 tokens to play games. What was the fraction of the remaining number of tokens to the original number of tokens?

A. $\frac{2}{5}$

B. $\frac{3}{5}$

11. 俊傑原來有30個代幣，他把7個代幣給了偉明，又用了11個代幣玩遊戲。餘下代幣的數量是原來代幣數量的幾分之幾？

C. $\frac{19}{30}$

D. $\frac{23}{30}$

12. Bottle P contains 1.35L of lemon tea originally. Then, Amy pours 0.7L of lemon tea into Bottle P. If Bottle Q contains 2.59L of lemon tea, what is the difference of lemon tea in the two bottles?

A. 3.24L

B. 1.94L

C. 0.54L

D. 0.16L

12. 瓶P內原有1.35L檸檬茶，雪兒再把0.7L檸檬茶倒入瓶P。如果瓶Q內有2.59L檸檬茶，這兩個瓶子內的檸檬茶相差多少？

A. 3.24L

B. 1.94L

C. 0.54L

D. 0.16L

13. The price of a pair of socks is \$12. A reduction of \$34 is given to the purchase of a box of 10 pairs of socks. By how much is a pair of socks cheaper on average?

A. $\$3\frac{2}{5}$

B. $\$4\frac{1}{5}$

C. $\$6\frac{3}{5}$

D. $\$8\frac{3}{5}$

13. 襪子每雙的售價是\$12。現購買一盒共10雙的襪子，可獲減價\$34，平均每雙襪子便宜了多少？

A. $\$3\frac{2}{5}$

B. $\$4\frac{1}{5}$

C. $\$6\frac{3}{5}$

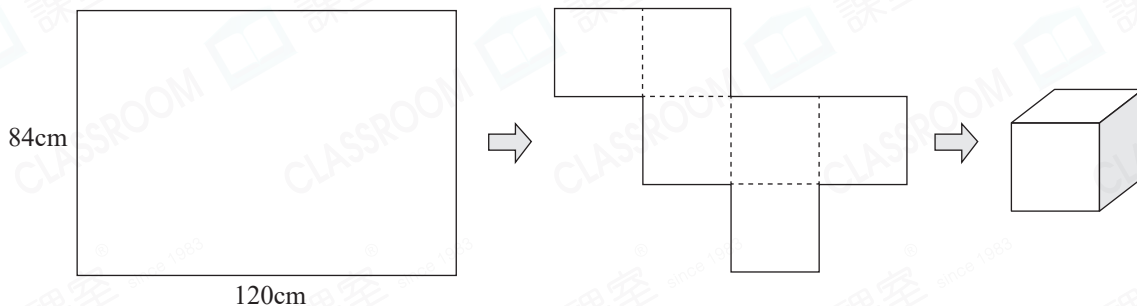
D. $\$8\frac{3}{5}$

14. A ribbon is 4m long. After cutting by $2\frac{2}{5}$ m from it, the remaining part is cut into pieces of $\frac{3}{10}$ m long each. How many ribbons of equal length at most will there be?

- A. 4
- B. 5
- C. 6
- D. 7

14. 一條絲帶長4m。剪去 $2\frac{2}{5}$ m後，餘下的部分每 $\frac{3}{10}$ m分成一段。最多可分成長度相同的絲帶多少段？

- A. 4
- B. 5
- C. 6
- D. 7



15. The above net of a cube is cut from a piece of rectangular colour paper of length 120cm and width 84cm. The net is then folded into a cube. What is the longest possible side of the cube formed?

- A. 40cm
- B. 36cm
- C. 30cm
- D. 28cm

15. 用一張長120cm、闊84cm的長方形顏色紙，剪出一個如上的正方體摺紙圖樣。這摺紙圖樣摺出的正方體的邊長最長可以是多少？

- A. 40cm
- B. 36cm
- C. 30cm
- D. 28cm

16. Kim drew a straight line on a piece of rhombic paper and divided it into two triangles. Which of the following **must be** correct?

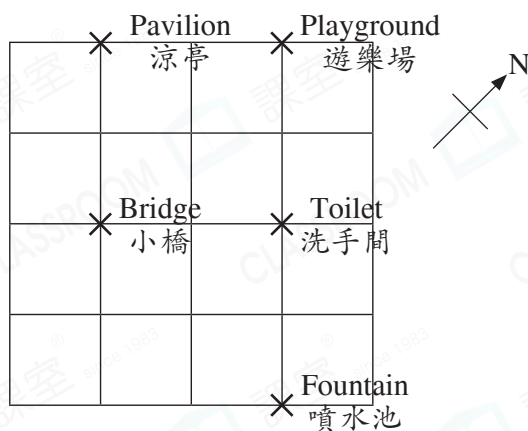
- I. These two triangles have the same perimeter.
- II. These two triangles have the same area.
- III. These two triangles have only one acute angle each.

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

16. 小鋒在一張菱形手工紙上畫一條直線，把它分成兩個三角形。以下哪項**必定**是正確的？

- I. 這兩個三角形的周界相等。
- II. 這兩個三角形的面積相等。
- III. 這兩個三角形各只有一個銳角。

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

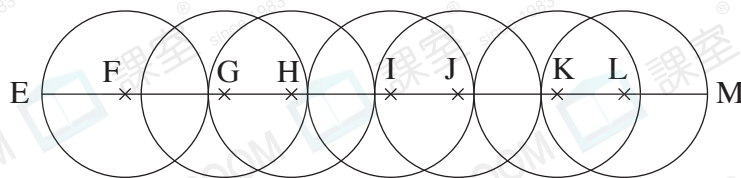


17. The above figure is the plan of a park. If the Toilet is in the southeast of Simon, which of the following places may be Simon's location?

- A. Playground
- B. Pavilion
- C. Bridge
- D. Fountain

17. 上圖是公園的平面圖，如果洗手間在志明的東南方，下列哪一個地點可能是志明的所在地？

- A. 遊樂場
- B. 涼亭
- C. 小橋
- D. 噴水池



18. In the above figure, EM is a line segment passing through all the centres of the circles. If the radius of each circle is 3cm, what is the length of EM?

- A. 12cm
- B. 18cm
- C. 24cm
- D. 30cm

18. 上圖中，EM 是一條經過所有圓心的線段。如果每個圓的半徑都是 3cm，EM 的長度是多少？

- A. 12cm
- B. 18cm
- C. 24cm
- D. 30cm

← 5cm

← 10cm

← 5cm

← 10cm

← 10cm

19. If all of the above five sticks are used together to form a quadrilateral, which of the following quadrilateral(s) can be formed?

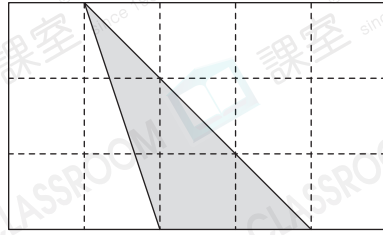
- I. square
- II. rhombus
- III. trapezium

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

19. 如果同時使用以上的五枝竹簽去組成一個四邊形，可以組成以下哪個/些四邊形？

- I. 正方形
- II. 菱形
- III. 梯形

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

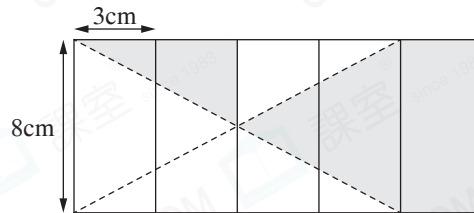


20. The above rectangle is formed by 15 squares of the same size. The perimeter of the rectangle is 96cm. What is the area of the shaded part?

- A. 540cm^2
- B. 270cm^2
- C. 216cm^2
- D. 108cm^2

20. 上圖的長方形是由15個大小相同的正方形組成，該長方形的周界是96cm。陰影部分的面積是多少？

- A. 540cm^2
- B. 270cm^2
- C. 216cm^2
- D. 108cm^2

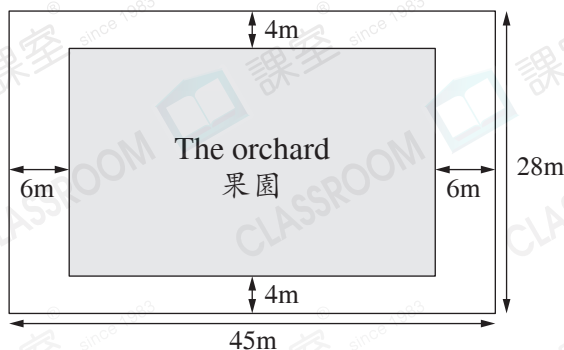


21. The above figure is formed by 5 rectangles of the same size and same shape. What is the area of the shaded part?

- A. 36cm^2
- B. 48cm^2
- C. 60cm^2
- D. 96cm^2

21. 上圖是由5個大小和形狀相同的長方形組成，陰影部分的面積是多少？

- A. 36cm^2
- B. 48cm^2
- C. 60cm^2
- D. 96cm^2

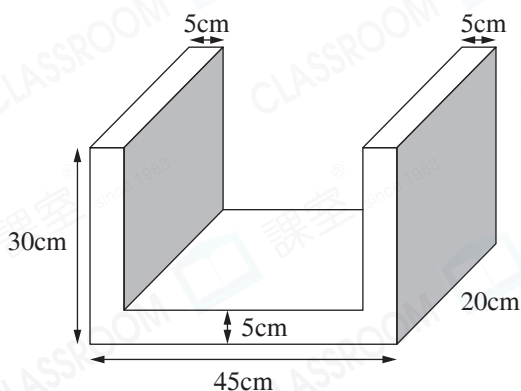


22. A rectangular orchard will be built in the centre of rectangular land of 45m long and 28m wide, as shown above. The cost of building the orchard is \$80 per square metre. What is the total cost of building the orchard?

- A. \$660
- B. \$936
- C. \$52 800
- D. \$74 880

22. 一塊長45m，闊28m的長方形土地中間要修建一個長方形果園，如上圖所示。修建果園的費用是每平方米 \$80，修建果園的總費用是多少？

- A. \$660
- B. \$936
- C. \$52 800
- D. \$74 880

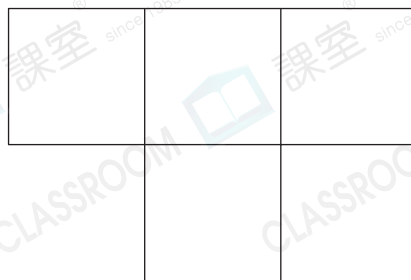


23. What is the volume of the above figure?

- A. 7000cm^3
- B. 9500cm^3
- C. $12\,500\text{cm}^3$
- D. $17\,500\text{cm}^3$

23. 上圖的體積是多少？

- A. 7000cm^3
- B. 9500cm^3
- C. $12\,500\text{cm}^3$
- D. $17\,500\text{cm}^3$

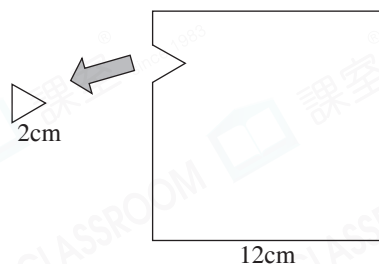


24. The above figure is formed by four squares of the same size. The area of the figure is 64cm^2 . What is its perimeter?

- A. 64cm
- B. 52cm
- C. 40cm
- D. 16cm

24. 上圖是由4個大小相同的正方形所組成，面積是 64cm^2 ，它的周界是多少？

- A. 64cm
- B. 52cm
- C. 40cm
- D. 16cm

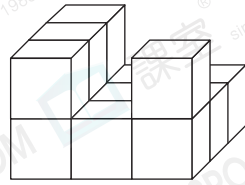


25. An equilateral triangle with side 2cm is cut out from a square, as shown above. What is the perimeter of the remaining figure?

- A. 32cm
- B. 44cm
- C. 50cm
- D. 52cm

25. 從正方形中剪出一個邊長2cm的等邊三角形，如上圖所示。餘下圖形的周界是多少？

- A. 32cm
- B. 44cm
- C. 50cm
- D. 52cm



26. The above solid is formed by cubes with side 5cm. What is the volume of the solid?

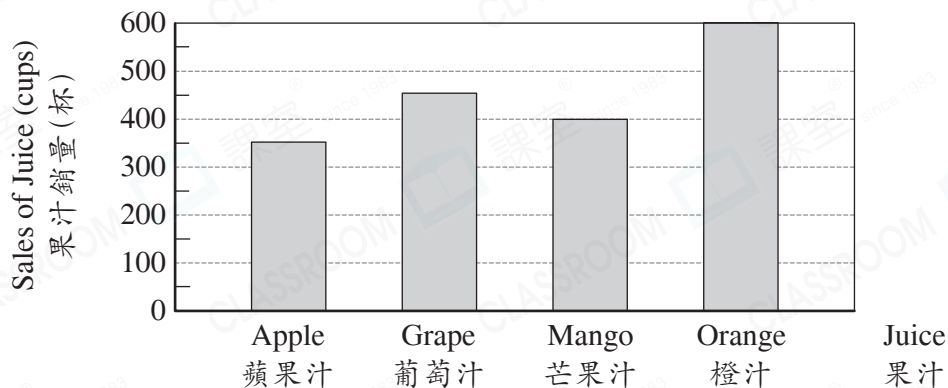
- A. 1250cm^3
- B. 1375cm^3
- C. 1625cm^3
- D. 2250cm^3

26. 以上立體由多個邊長5cm的正方體組成。該立體的體積是多少？

- A. 1250cm^3
- B. 1375cm^3
- C. 1625cm^3
- D. 2250cm^3

Sales of Juice in a Juice Shop Last Week

果汁店上星期果汁的銷量



27. The two types of top selling juice last week were sold at \$29 per cup, which were \$5 cheaper than the other two types. What was the total income of the juice shop last week?

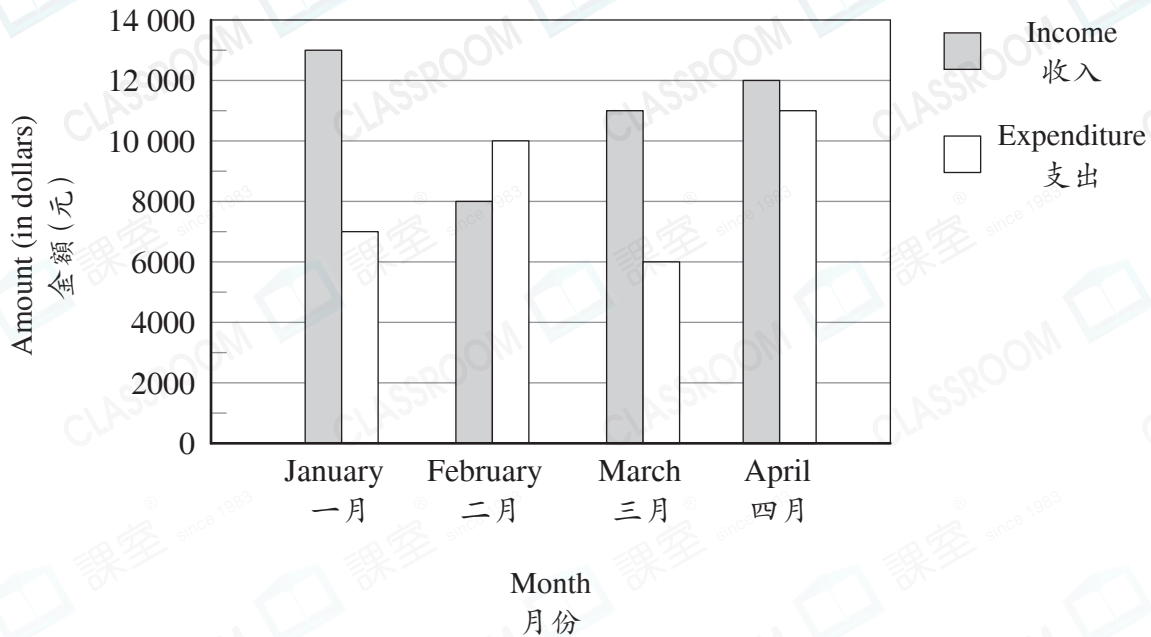
- A. \$52 200
- B. \$55 950
- C. \$56 200
- D. \$61 200

27. 上星期售出最多的兩種果汁每杯售價都是\$29，比其餘兩種便宜\$5。果汁店上星期的總收入是多少？

- A. \$52 200
- B. \$55 950
- C. \$56 200
- D. \$61 200

Income and Expenditure of Mr Hui from January to April

許先生在一月至四月的收支

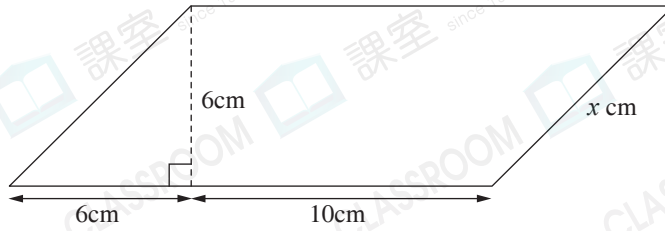


28. According to the above graph, which of the following is correct?

- A. The income was more than the expenditure in each month.
- B. The total income was more than the total expenditure from February to April.
- C. The income was \$2000 more than the expenditure in April.
- D. The total expenditure was \$44 000 from January to April.

28. 根據上圖，以下哪一項是正確的？

- A. 每月的收入都比支出多。
- B. 在二月至四月，總收入比總支出多。
- C. 四月的收入比支出多 \$2000。
- D. 在一月至四月，總支出是 \$44 000。



29. The above figure is a parallelogram and it is cut along the dotted line. The two shapes are then put together to form a trapezium. What is the perimeter of the trapezium?

- A. $(32 + 2x)$ cm
- B. $(32 + x)$ cm
- C. $(16 + 2x)$ cm
- D. $(16 + x)$ cm

29. 上圖是一個平行四邊形，沿虛線剪開後，然後再拼砌成一個梯形。這個梯形的周界是多少？

- A. $(32 + 2x)$ cm
- B. $(32 + x)$ cm
- C. $(16 + 2x)$ cm
- D. $(16 + x)$ cm

30. If $2p = 12$, then $\frac{p}{2} = ?$

- A. 3
- B. 6
- C. 12
- D. 48

30. 如果 $2p = 12$ ，那麼 $\frac{p}{2} = ?$

- A. 3
- B. 6
- C. 12
- D. 48

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。

Figure 1

圖一

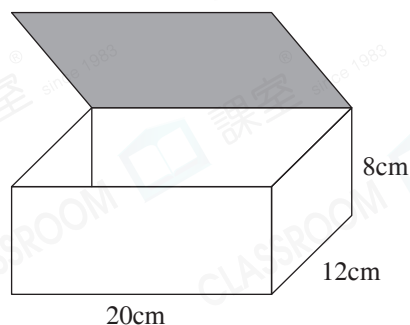
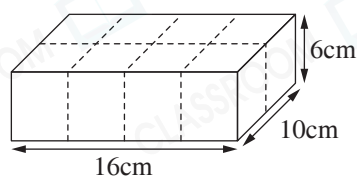


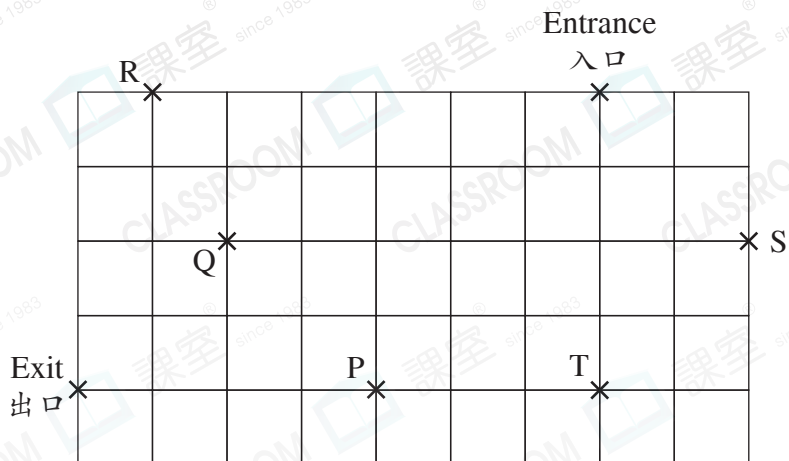
Figure 2

圖二



31. (a) Mr Lee bought a cuboid matcha cake and put it into the cuboid paper box shown in Figure 1. Complete the net of this paper box on the answer sheet. [2 marks]
- (b) Mr Lee divided the matcha cake into 8 portions evenly along the dotted lines as shown in Figure 2. What was the volume of each portion of matcha cake? [4 marks]
- (c) The weight of the whole matcha cake was 480g. The weight of matcha powder and sugar were 12g and 60g respectively. What was the fraction of the total weight of matcha powder and sugar to that of the whole matcha cake? (Give the answer only) [2 marks]

31. (a) 李先生買了一塊長方體的抹茶蛋糕，並把它放入圖一的長方體紙盒內。在答題紙上完成這個紙盒的摺紙圖樣。 [2分]
- (b) 李先生沿着虛線把抹茶蛋糕平均分成8份，如圖二所示。每份抹茶蛋糕的體積是多少？ [4分]
- (c) 整個抹茶蛋糕的重量是480g，抹茶粉和糖的重量分別是12g和60g。抹茶粉和糖的總重量佔整個抹茶蛋糕的幾分之幾？(只須寫出答案) [2分]



32. The above figure is the floor plan of Mr Lam's farm. The Orchard is in area T. Mr Lam planted 88 fruit trees in the Orchard, $\frac{7}{11}$ of them were litchi trees and the rest were mango trees.

- (a) Area Q is in the east of the Exit. What is the direction of the Orchard from the Exit? (Give the answer only) [2 marks]
- (b) Among these litchi trees, $\frac{5}{14}$ of them were in fruit. How many litchi trees were in fruit? (Give the answer only) [2 marks]
- (c) Mr Lam will apply 300g of fertilizer to each mango tree. To fertilize all the mango trees, how much fertilizer is needed? (Give the answer only) [2 marks]

32. 上圖是林先生農莊的平面圖。果園在區域T。林先生在果園裏種植了88棵果樹，其中 $\frac{7}{11}$ 是荔枝樹，其餘都是芒果樹。

- (a) 區域Q在出口的東方。果園在出口的哪一方？(只須寫出答案) [2分]
- (b) 果園的荔枝樹中，有 $\frac{5}{14}$ 已經結果，結果的荔枝樹共有多少棵？(只須寫出答案) [2分]
- (c) 林先生將要給每棵芒果樹施300g肥料。他給所有芒果樹施肥，共需要肥料多少？(只須寫出答案) [2分]

33. In an online shooting game, the marks that Jacky got were 0.7 of what Leo got. Leo got $\frac{1}{4}$ more than Carrie.

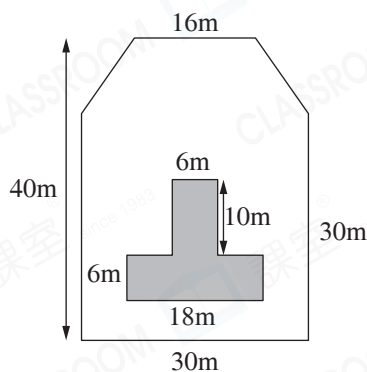
(a) If Carrie got 1200 marks, how many marks did Leo get? [4 marks]

(b) Jacky believed that he got less marks than Carrie. Do you agree with him? Explain. [4 marks]

33. 在一次網上射擊遊戲中，俊軒的得分是子豪的0.7，而子豪的得分比婉琪的多 $\frac{1}{4}$ 。

(a) 如果婉琪得1200分，子豪的得分是多少？ [4分]

(b) 俊軒認為自己的得分比婉琪的少，你同意嗎？試解釋。 [4分]



34. The above figure is the floor plan of a sports field. A stage was built in the sports field, as shown in the shaded part above.

(a) What was the perimeter of the stage? (Give the answer only) [2 marks]

(b) What was the area of the sports field? [4 marks]

34. 上圖是一個運動場的平面圖。這個運動場中搭建了一個舞台，如陰影部分所示。

(a) 舞台的周界是多少？（只須寫出答案） [2分]

(b) 運動場的面積是多少？ [4分]

35. A school organised a trip. The school hired altogether 1 large coach and x small coaches.

35. 某學校舉辦了一次旅行，租用了1輛大型旅遊車和 x 輛小型旅遊車。

Coach Type 旅遊車種類	Small 小型	Large 大型
Maximum Capacity (Passenger) 最多可載客 (人)	20	42

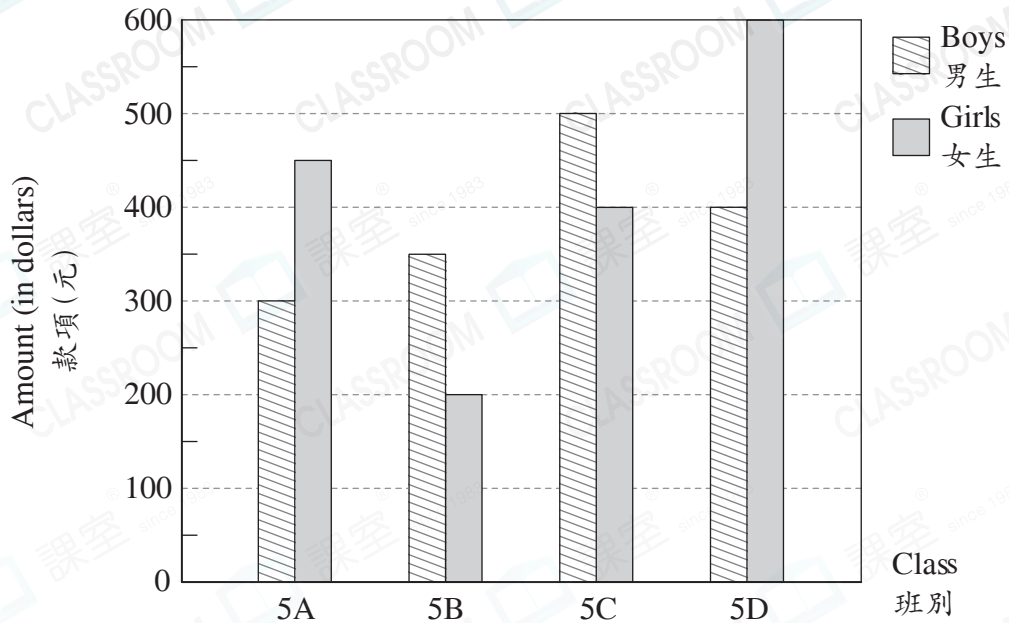
(a) According to the above table, what was the greatest possible number of people joining the trip? (Give the answer only and express the answer in terms of x) [2 marks]

(a) 根據上表，這次旅行最多可有多少人參加？(只須寫出答案，答案以 x 表示) [2分]

(b) There were altogether 162 people joining the trip. When all the people got on the coaches, there were no empty seats left. How many small coaches did the school hire? (Use equation to solve the problem and show your working) [4 marks]

(b) 這次旅行有162人參加，當所有人上車後，車上沒有餘下空的座位。學校租用了多少輛小型旅遊車？(須用方程列式計算，並展示步驟) [4分]

Amount Raised by Primary 5 Students
五年級學生籌得的款項



- 36.** (a) Which class has the difference of \$100 in amounts raised between the boys and the girls? (Give the answer only) [2 marks]
- (b) What is the total amount raised by Primary 5 students? (Give the answer only) [2 marks]
- (c) After \$200 more amount are raised by the boys of a certain class, it is found that in that class, amount raised by the boys changes from less than to more than amount raised by the girls. Draw a bar representing the new amount raised by the boys on the answer sheet. [2 marks]

- 36.** (a) 哪個班男生和女生籌得的款項相差\$100? (只須寫出答案) [2分]
- (b) 五年級學生共籌得款項多少? (只須寫出答案) [2分]
- (c) 在某個班的男生多籌得\$200後, 發現在那個班中, 男生籌得的款項從少於女生籌得的款項變為多於女生籌得的款項。在答題紙上畫出代表男生新的籌款的棒條。 [2分]