

HONG KONG ATTAINMENT TEST
香港學科測驗

Mathematics 數學

Primary 6 六年級

Mock Paper of the Latest Question Types
最新題型增值卷

| 題號 | 學習重點 | 範疇 | 題號 | 學習重點 | 範疇 |
|----|-----------------------------|-------|---------------------------|----------------|-------|
| 1 | 多位數 (5 上) | 數 | 24 | 速率 (6 下) | 度量 |
| 2 | 整數乘法 (4 上) | | 25 | 行程圖 (6 下) | |
| 3 | 整數除法 (4 上) | | 26 | 複合棒形圖 (5 上) | 數據處理 |
| 4 | 因數 (4 上) | | 27 | 圓形圖 (6 下) | |
| 5 | 公倍數和公因數 (4 上) | | 28 | 統計的應用及誤用 (6 下) | |
| 6 | 分數的認識 (4 下) | | 29 | 代數符號 (5 上) | 代數 |
| 7 | 分數除法 (5 下) | | 30 | 解方程 (5 下) | |
| 8 | 小數的認識 (4 下) | | 31(a) | 分數減法 (5 上) | 數 |
| 9 | 小數加減混合運算 (4 下) | | 31(b) | 整數四則混合運算 (4 下) | |
| 10 | 小數乘法 (5 下) | | 32(a) | 分數乘法 (5 上) | |
| 11 | 分數和小數的大小比較 (6 上) | | 32(b) | 四邊形的性質 (4 上) | 圖形與空間 |
| 12 | 分數四則混合運算 (5 下)、百分數的應用 (6 下) | 33(a) | 解方程 (6 下) | 代數 | |
| 13 | 圖形拼砌 (4 上) | 33(b) | 百分數的應用 (6 下) | 數 | |
| 14 | 圓的認識 (5 下) | 34(a) | 折線圖 (6 上) | 數據處理 | |
| 15 | 軸對稱平面圖形 (6 上) | 34(b) | 折線圖 (6 上)、平均數 (6 上) | | |
| 16 | 立體圖形的頂點和稜 (5 下) | 35(a) | 圓柱的摺紙圖樣 (5 下)、圓周的計算 (6 下) | 度量 | |
| 17 | 方向 (4 上) | 35(b) | 立體圖形的截面 (5 下) | 圖形與空間 | |
| 18 | 圖形的周界 (4 下) | 36(a) | 長方體的體積 (5 下) | 度量 | |
| 19 | 角和度 (6 下) | 36(b) | 小數四則混合運算 (6 上) | 數 | |
| 20 | 長方形的面積 (4 下) | | | | |
| 21 | 圖形的面積 (5 上) | | | | |
| 22 | 圓面積的計算 (6 下) | | | | |
| 23 | 不規則立體的體積 (6 上) | | | | |

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. You can use a pencil or a black/blue ball pen to answer the questions.

7. 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. 學生可以用鉛筆或黑/藍色圓珠筆作答。

7. 不准使用計算機。

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 94 998 586 to one of the following places, the approximate value may never be 95 000 000. What is that place?

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

After rounding off 94 998 586 to one of the following places
A, B and C: 95 000 000
D: 94 999 000

1. 把94 998 586取近似值至以下其中一個位，不可能得出95 000 000。該位是什麼？

- A. 百萬位 把94 998 586取近似值至各選項的數位：
- B. 十萬位 A、B和C: 95 000 000
- C. 萬位 D: 94 999 000
- D. 千位**

2. There are four dozen in a box of greeting cards. Each greeting card costs \$15. If Ms Chu wants to buy 16 boxes of greeting cards, how much should she pay?

- A. \$11 520**
- B. \$2880
- C. \$768
- D. \$240

$$15 \times 12 \times 4 \times 16 = 11\,520$$

2. 一盒賀卡有四打。每張賀卡售\$15。如果朱小姐要買16盒賀卡，她須付多少？

- A. \$11 520**
- B. \$2880
- C. \$768
- D. \$240

3. It took 32 seconds to delete 480 files. How many seconds would it take to delete 420 files at the same speed?

- A. 18 seconds
- B. 26 seconds
- C. 27 seconds
- D. 28 seconds**

$$420 \div (480 \div 32) = 28$$

3. 刪除480個文件用了32秒。如果以相同的速度刪除420個文件，要用多少秒？

- A. 18秒
- B. 26秒
- C. 27秒
- D. 28秒**

$$420 \div (480 \div 32) = 28$$

4. One of the following numbers has a different number of factors than the other three numbers. What is the result of adding up all the factors of that number?

16

21

26

34

- A. 31**
- B. 32
- C. 42
- D. 54

Factors of 16: 1, 2, 4, 8, 16
Factors of 21: 1, 3, 7, 21
Factors of 26: 1, 2, 13, 26
Factors of 34: 1, 2, 17, 34
 $1 + 2 + 4 + 8 + 16 = 31$

4. 以下四個數中，其中一個數的因數數量和其他三個數不同。該數所有因數相加的結果是多少？

- A. 31**
- B. 32
- C. 42
- D. 54

16的因數：1、2、4、8、16
21的因數：1、3、7、21
26的因數：1、2、13、26
34的因數：1、2、17、34
 $1 + 2 + 4 + 8 + 16 = 31$

5. The number on the card is a common factor of 40 and 60. It's also a common multiple of 4 and 10. Which of the following may be the number on the card?

- A. 10
- B. 20**
- C. 40
- D. 60

A. 10 is not a multiple of 4.
C. 40 is not a factor of 60.
D. 60 is not a factor of 40.

5. 數字卡上的數是40和60的公因數，也是4和10的公倍數。以下哪一項可能是數字卡上的數？

- A. 10
- B. 20**
- C. 40
- D. 60

A. 10不是4的倍數。
C. 40不是60的因數。
D. 60不是40的因數。

6. Miss Wong had 42 egg tarts originally. She ate 6 egg tarts and gave 14 egg tarts to her friends. What was the fraction of the remaining number of egg tarts to the original number of egg tarts?

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

B. $\frac{6}{7}$

C. $\frac{11}{21}$

D. $\frac{10}{21}$

$$\frac{42-6-14}{42} = \frac{11}{21}$$

6. 王小姐原有42個蛋撻，她吃了6個蛋撻，又把14個蛋撻送給朋友。餘下蛋撻的數量佔原有的幾分之幾？

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

B. $\frac{6}{7}$

C. $\frac{11}{21}$

D. $\frac{10}{21}$

$$\frac{42-6-14}{42} = \frac{11}{21}$$

7. There were 140L of juice. If every $\frac{3}{5}$ L of juice is poured into a bottle, how many bottles of juice can be poured at most?

A. 84

B. 222

C. 233

D. 234

$$140 \div \frac{3}{5} = 233\frac{1}{3}$$

7. 現有 140L 果汁。若把每 $\frac{3}{5}$ L 的果汁倒成一瓶，最多可倒成果汁多少瓶？

A. 84

B. 222

C. 233

D. 234

$$140 \div \frac{3}{5} = 233\frac{1}{3}$$

| | |
|--|---|
| <p>8. The tens digit and thousandths digit of a number are '2' and '6' respectively. Which of the following may be this number?</p> <p>A. 64.442</p> <p>B. 24.446</p> <p>C. 244.4446</p> <p>D. 42.446</p> | <p>8. 一個數的十位數和千分位數分別是 2 和 6。以下哪項可能是這個數？</p> <p>A. 64.442</p> <p>B. 24.446</p> <p>C. 244.4446</p> <p>D. 42.446</p> |
| <p>9. Amy saved \$200 to her bank card. Then she paid \$153.6 with her bank card in a store. The remaining value in her bank card was \$62.8. What was the remaining value in Amy's bank card before it was saved?</p> <p>A. \$16.4</p> <p>B. \$46.4</p> <p>C. \$109.2</p> <p>D. \$137.2</p> <p style="text-align: right;">$62.8 + 153.6 - 200 = 16.4$</p> | <p>9. 雅婷把\$200儲蓄到銀行卡後，在商店用銀行卡付款\$153.6，她的銀行卡餘額是\$62.8。雅婷的銀行卡在儲蓄之前有多少餘額？</p> <p>A. \$16.4</p> <p>B. \$46.4</p> <p>C. \$109.2</p> <p>D. \$137.2</p> <p style="text-align: right;">$62.8 + 153.6 - 200 = 16.4$</p> |

10. Jack wants to buy a box of model cars for each of his 6 friends. If there are 4 model cars in each box and the price of each model car is \$32.6, how much should he pay in total?

A. \$782.4

B. \$770.4

C. \$680.4

D. \$130.4

$$32.6 \times 4 \times 6 = 782.4$$

10. 嘉林為6位朋友每位購買一盒模型車，每盒模型車有4部。如果每部模型車售\$32.6，他共須付多少？

A. \$782.4

B. \$770.4

C. \$680.4

D. \$130.4

$$32.6 \times 4 \times 6 = 782.4$$

| Parcel 包裹 | P | Q | R | S |
|--------------|-------------------|------------------|--------|-------------------|
| Weight 重量 | $1\frac{3}{4}$ kg | $\frac{9}{5}$ kg | 1.79kg | $\frac{13}{8}$ kg |

11. According to the above table, which parcel is the heaviest?

A. P

B. Q

C. R

D. S

$$P: 1\frac{3}{4} = 1.75$$

$$Q: \frac{9}{5} = 1.8$$

$$S: \frac{13}{8} = 1.625$$

$$1.8 > 1.79 > 1.75 > 1.625$$

11. 根據上表，哪件包裹最重？

A. P

B. Q

C. R

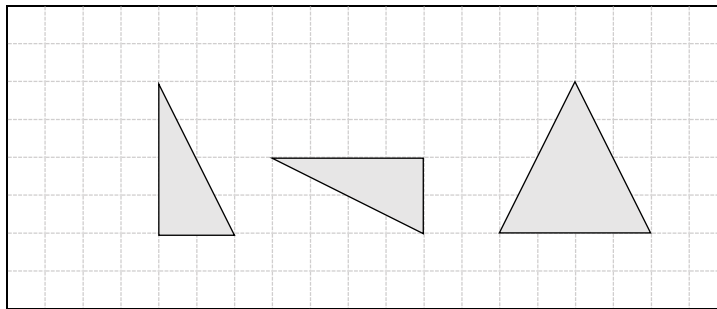
D. S

12. There were 400 plastic boxes originally. 160 plastic boxes were used last week, $\frac{1}{8}$ of the remaining plastic boxes were used this week. What was the percentage of the plastic boxes used this week to the original?

- A. 60% $(400-160) \times \frac{1}{8} = 30$
 B. 40% 30 plastic boxes were used this week.
 C. 12.5% $\frac{30}{400} \times 100\% = 7.5\%$
D. 7.5%

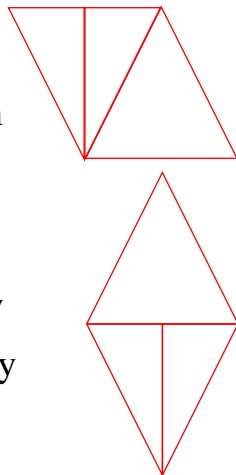
12. 原有400個膠盒。上星期用去160個，今個星期用去餘下膠盒的 $\frac{1}{8}$ 。今個星期用去的膠盒佔原有的百分之幾？

- A. 60% 今個星期用去膠盒
 B. 40% $(400-160) \times \frac{1}{8}$
 C. 12.5% = 30(個)
D. 7.5% $\frac{30}{400} \times 100\% = 7.5\%$



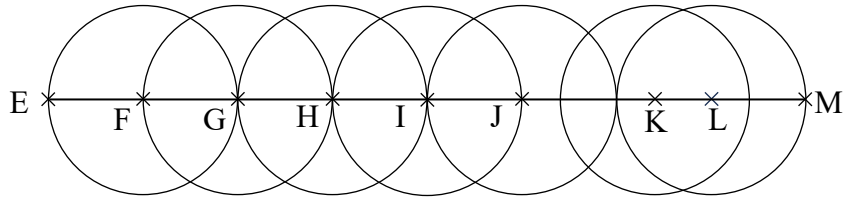
13. Which of the following shapes can be formed by using all the above figures?

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



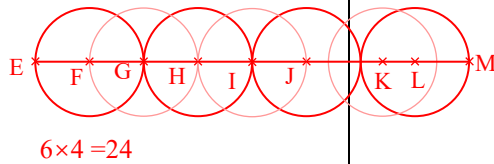
13. 用以上所有圖形，可以拼出以下哪些圖形？

- I. 三角形
 II. 平行四邊形
 III. 菱形
- A. 只有I及II
 B. 只有I及III
C. 只有II及III
 D. I、II及III



14. In the above figure, EM is a line segment passing through all the centres of the circles. If the diameter of each circle is 6cm, what is the length of EM?

- A. 42cm
- B. 36cm
- C. 30cm
- D. 24cm**



14. 上圖中，EM是一條經過所有圓心的線段。如果每個圓的直徑都是6cm，EM的長度是多少？

- A. 42cm
- B. 36cm
- C. 30cm
- D. 24cm**

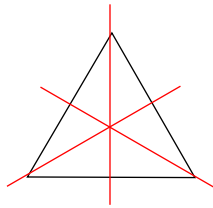


Figure 1
圖一

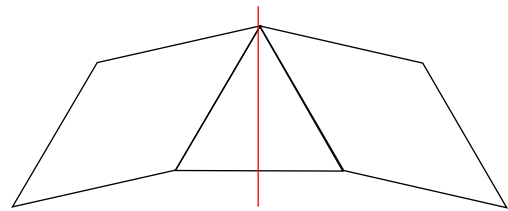


Figure 2
圖二

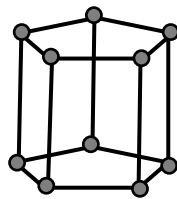
15. Figure 1 is an equilateral triangle. Figure 2 is formed by an equilateral triangle and two rhombuses of the same size. They are both shapes having axial symmetry. How many axes of symmetry do they have?

| | Figure 1 | Figure 2 |
|-----------|----------|----------|
| A. | 1 | 1 |
| B. | 3 | 1 |
| C. | 1 | 3 |
| D. | 3 | 3 |

15. 圖一是一個等邊三角形。圖二由一個等邊三角形和兩個大小相同的菱形組成。它們都是軸對稱圖形。它們有對稱軸多少條？

| | 圖一 | 圖二 |
|-----------|----|----|
| A. | 一條 | 一條 |
| B. | 三條 | 一條 |
| C. | 一條 | 三條 |
| D. | 三條 | 三條 |

A triangular prism has 9 edges and 6 vertexes.
 $9 \times 3 - 15 = 12$
 12 extra sticks are needed.
 $6 \times 3 - 10 = 8$
 8 extra plastic beads are needed.



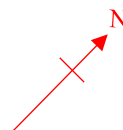
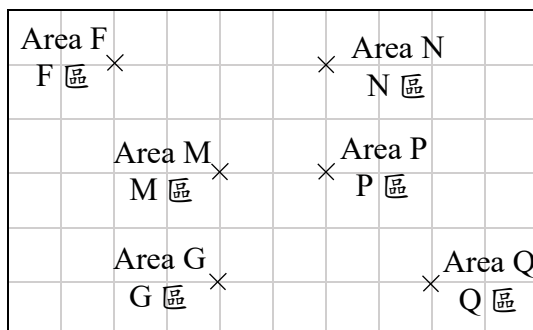
一個三角柱有 9 條棱和 6 個頂點。
 $9 \times 3 - 15 = 12$
 額外需要 12 枝竹簽。
 $6 \times 3 - 10 = 8$
 額外需要 8 粒膠珠。

16. The above pentagonal prism is formed by 15 sticks of the same length and 10 plastic beads. This pentagonal prism is restructured to form three triangular prisms. How many extra sticks and plastic beads are needed at least?

- A. 4 sticks and 4 plastic beads
- B. 8 sticks and 12 plastic beads
- C. 12 sticks and 8 plastic beads**
- D. 12 sticks and 2 plastic beads

16. 上圖的五角柱由 15 枝長度相同的竹簽及 10 粒膠珠組成。把這個五角柱分拆重組成三個三角柱，最少額外需要多少竹簽及膠珠？

- A. 4 枝竹簽及 4 粒膠珠
- B. 8 枝竹簽及 12 粒膠珠
- C. 12 枝竹簽及 8 粒膠珠**
- D. 12 枝竹簽及 2 粒膠珠

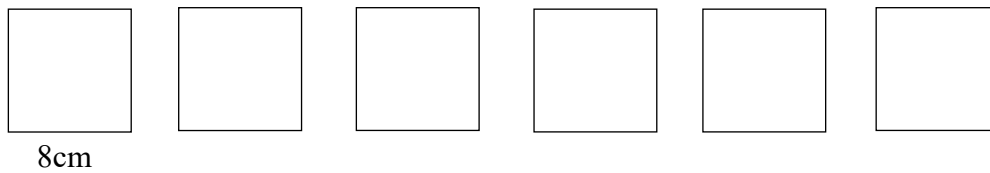


17. The above figure is the layout of the Zoo. Area F is to the southwest of Area N. Which of the following is to the east of Area P?

- A. Area M
- B. Area N
- C. Area G
- D. Area Q**

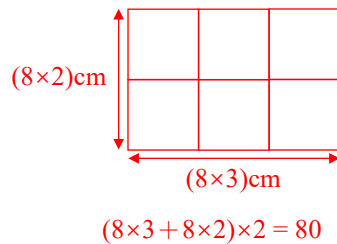
17. 以上是動物園的地圖，F區在N區的西南方，以下哪個在P區的東方？

- A. M區
- B. N區
- C. G區
- D. Q區**



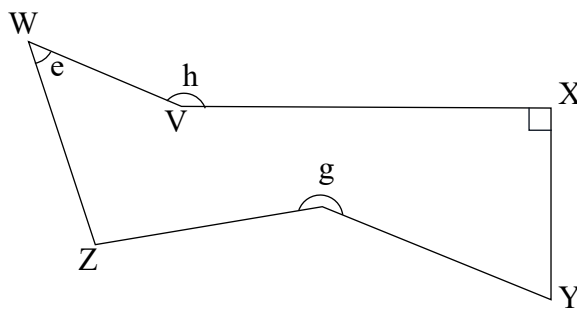
18. A new figure can be formed by using the above 6 squares of the same size together. What is the shortest perimeter of the new figure?

- A. 112cm
- B. 96cm
- C. 80cm**
- D. 72cm



18. 用以上6個大小都相同的正方形拼合成一個新的圖形。新圖形的周界最短是多少？

- A. 112cm
- B. 96cm
- C. 80cm**
- D. 72cm



19. According to the above figure, which of the following descriptions is / are correct?

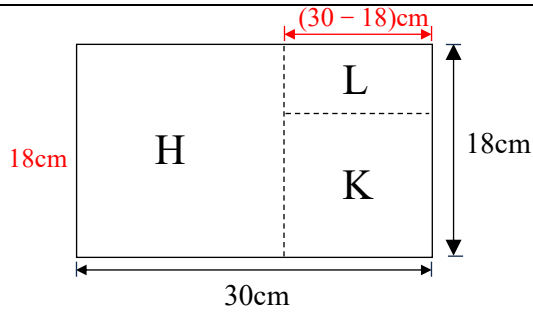
- I. $\angle e$ is an acute angle.
- II. The size of $\angle g$ is smaller than that of $\angle VXY$.
- III. $\angle h$ is a reflex angle.

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

19. 根據上圖，下列哪項/些描述是正確的？

- I. $\angle e$ 是一個銳角。
- II. $\angle g$ 的角度比 $\angle VXY$ 的小。
- III. $\angle h$ 是一個反角。

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

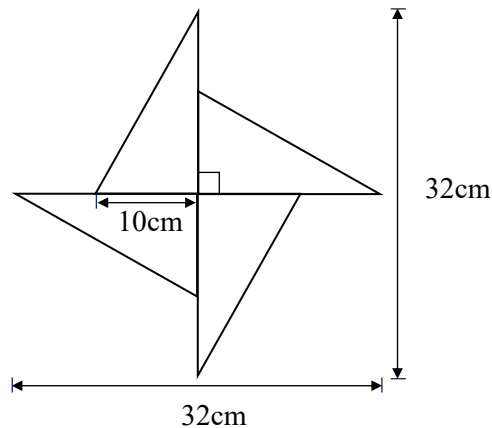


20. In the above figure, H and K are two squares of different sizes. What is the area of L ?

- A.** 72cm^2 The length of L is:
 $30 - 18 = 12(\text{cm})$
- B. 144cm^2 The width of L is:
 $18 - 12 = 6(\text{cm})$
- C. 324cm^2 $12 \times 6 = 72$
- D. 540cm^2

20. 上圖中，H和K是兩個大小不同的正方形。L的面積是多少？

- A.** 72cm^2 L的長是：
 $30 - 18 = 12(\text{cm})$
- B. 144cm^2 L的闊是：
 $18 - 12 = 6(\text{cm})$
- C. 324cm^2 $12 \times 6 = 72$
- D. 540cm^2

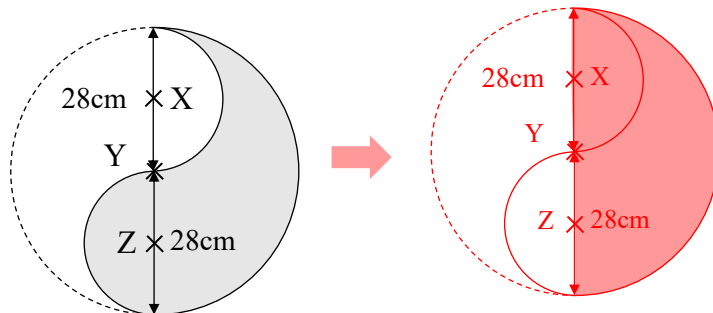


21. The above figure is formed by 4 triangles of the same size and same shape, what is its area?

- A. 80cm^2 $32 \div 2 = 16$
- B. 160cm^2 The height of each triangle is 16cm.
- C.** 320cm^2 $16 \times 10 \div 2 \times 4 = 320$
- D. 512cm^2 The area of the whole figure is 320cm^2 .

21. 上圖由4個大小和形狀相同的三角形組成，它的面積是多少？

- A. 80cm^2 每個三角形的高是：
 $32 \div 2 = 16(\text{cm})$
- B. 160cm^2 整個圖形的面積是
- C.** 320cm^2 $16 \times 10 \div 2 \times 4 = 320(\text{cm}^2)$
- D. 512cm^2

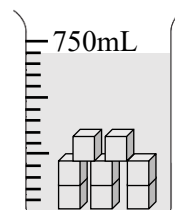
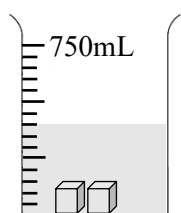


22. In the above figure, X, Y and Z are centres. What is the area of the shaded part? (Take π as $\frac{22}{7}$)

- A. 4928cm^2 Convert to a semicircle
- B. 2464cm^2 $28 \times 28 \times \frac{22}{7} \div 2$
- C. 1232cm^2** = 1232
- D. 88cm^2

22. 上圖中，X、Y和Z是圓心。陰影部分的面積是多少？(取 π 為 $\frac{22}{7}$)

- A. 4928cm^2 轉換成一個半圓
- B. 2464cm^2 $28 \times 28 \times \frac{22}{7} \div 2$
- C. 1232cm^2** = 1232
- D. 88cm^2



23. According to the above figures, what is the volume of one \square ?

- A. 30cm^3
- B. 50cm^3** $750 \div 15 = 50$
Each marking stands for 50mL.
The total volume of six \square is $(50 \times 14 - 50 \times 8) \text{cm}^3$.
- C. 60cm^3
- D. 87.5cm^3 The volume of one \square is $(50 \times 14 - 50 \times 8) \div 6$
= $50(\text{cm}^3)$

23. 根據上圖，一個 \square 的體積是多少？

- A. 30cm^3 $750 \div 15 = 50$
每格代表 50mL。
- B. 50cm^3** $(8-2)$ 個 \square 的總體積是 $(50 \times 14 - 50 \times 8) \text{cm}^3$ 。
一個 \square 的體積是 $(50 \times 14 - 50 \times 8) \div (8-2) = 50(\text{cm}^3)$
- C. 60cm^3
- D. 87.5cm^3

24. The distance between Amy's home and the technology park was 900m. In the morning, she took 10 minutes to walk to the technology park, which was 2 minutes more than that of in the afternoon. What was her average walking speed to the technology park in the afternoon?

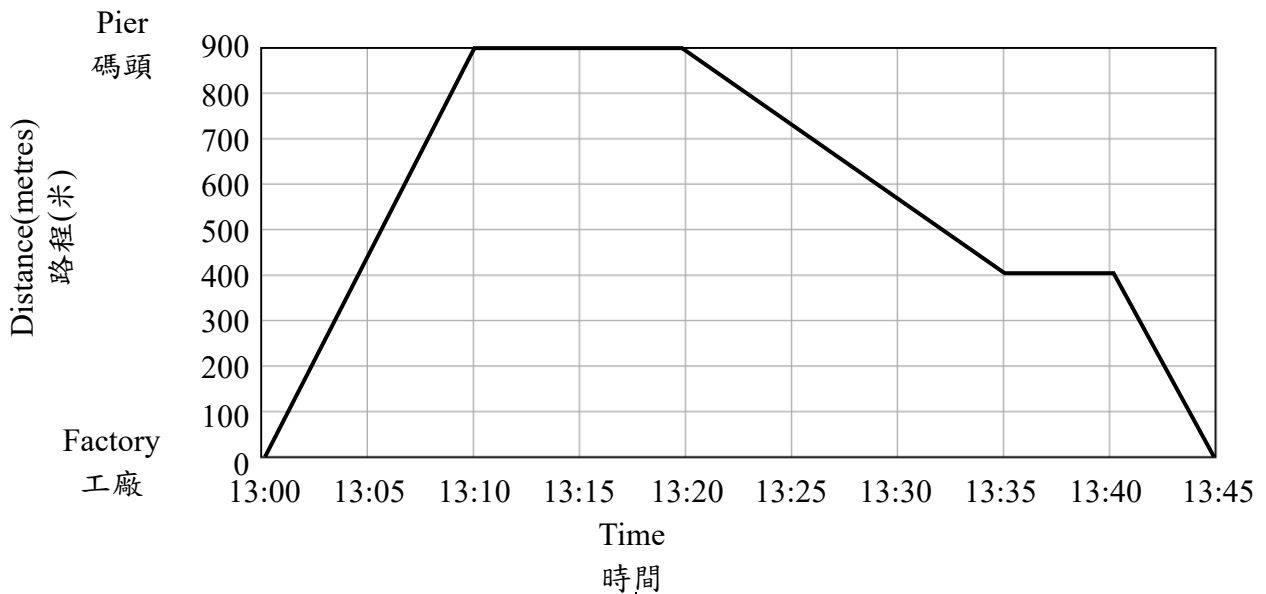
- A. $1\frac{1}{8}$ m/s She took (10-2) minutes in the afternoon.
 $10-2=8$
 $900\div(8\times 60)=1\frac{7}{8}$
- B. $1\frac{1}{2}$ m/s
- C.** $1\frac{7}{8}$ m/s
- D. 15m/s

24. 淑麗家和科技公園之間的路程是 900m。上午他用了 10 分鐘步行到科技公園，所用的時間比下午多 2 分鐘。淑麗下午步行至科技公園的平均速率是多少？

- A. $1\frac{1}{8}$ m/s 下午用了(10-2)分鐘。
 $10-2=8$
- B. $1\frac{1}{2}$ m/s $900\div(8\times 60)=1\frac{7}{8}$
- C.** $1\frac{7}{8}$ m/s
- D. 15m/s

James' Tavel Graph

嘉豪的行程圖



25. According to the above graph, which of the following descriptions was/were correct?

- I. James walked to the pier from the factory with an average speed of 5.4km/h.
- II. James returned the factory from the pier with an average speed of 2.16km/h.
- III. James stayed at the pier for 25 minutes.

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

25. 根據上圖，下列哪項/些描述是正確的？

- I. 嘉豪用5.4km/h的平均速率從工廠走到碼頭。
- II. 嘉豪用2.16km/h的平均速率從碼頭走回工廠。
- III. 嘉豪在碼頭逗留了25分鐘。

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

$900\text{m} = 0.9\text{km}$,

I. $0.9 \div \frac{10}{60} = 5.4(\text{km/h})$

II. $0.9 \div \frac{25}{60} = 2.16(\text{km/h})$

III. James stayed at the pier for 10 minutes.

$900\text{m} = 0.9\text{km}$,

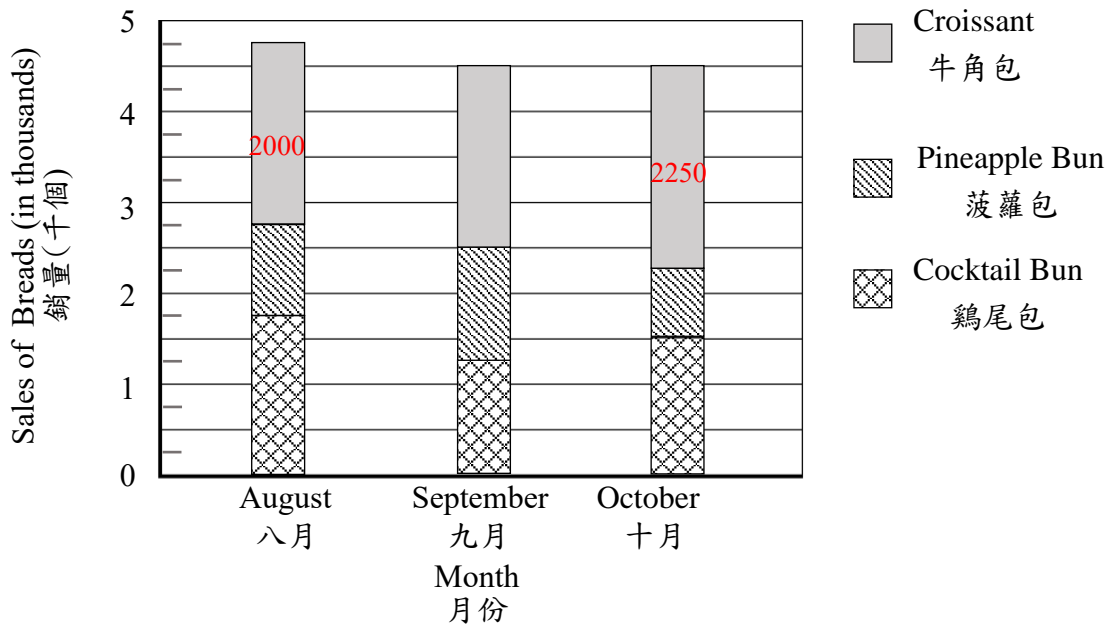
I. $0.9 \div \frac{10}{60} = 5.4(\text{km/h})$

II. $0.9 \div \frac{25}{60} = 2.16(\text{km/h})$

III. 嘉豪在碼頭逗留了10分鐘。

Sales of Breads in a Bakery

麵包店售出的麵包



26. According to the above graph, how many more / fewer croissants did the bakery sell in October than in August?

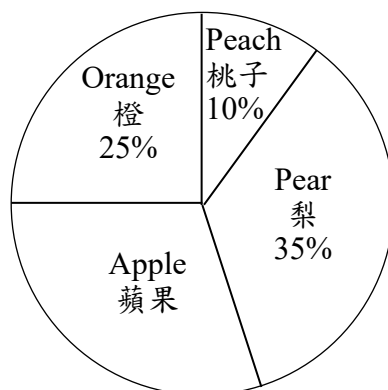
- A. 250 croissants fewer
- B. 250 croissants more**
- C. 500 croissants fewer
- D. 500 croissants more

$$2250 - 2000 = 250$$

26. 根據上圖，十月售出的牛角包比八月的多/少幾個？

- A. 少 250 個
- B. 多 250 個**
- C. 少 500 個
- D. 多 500 個

Number of Fruits Sold
水果店售出水果的數量



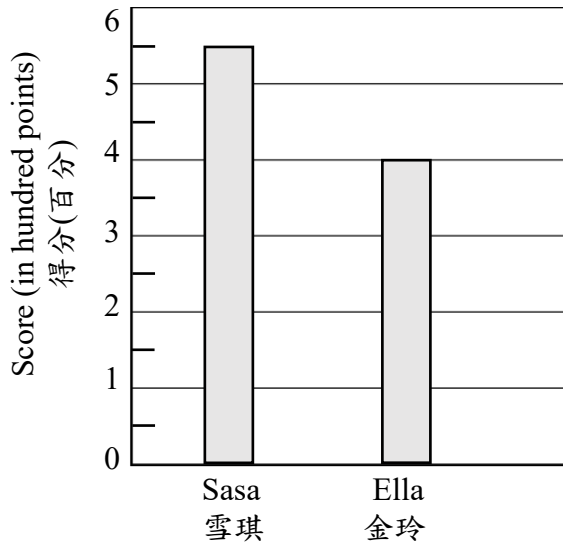
27. A fruit shop sold 420 fruits.
According to the chart above, how many the two best-selling fruits were sold in total?

- A. 378 $420 \times (1 - 25\% - 10\%) = 273$
B. 273
C. 231
D. 168

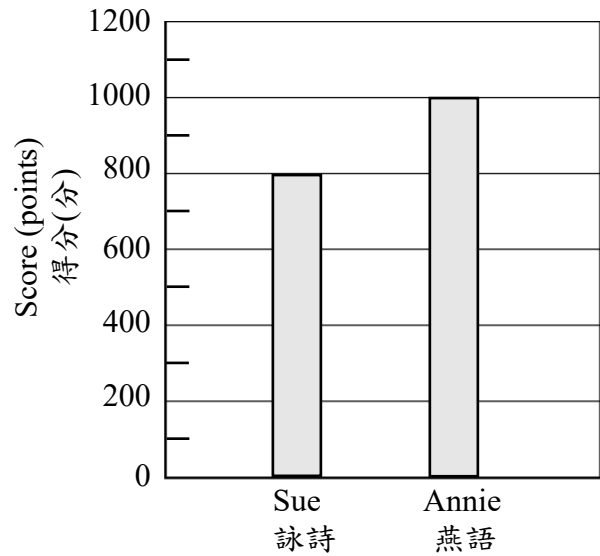
27. 一間水果店賣了 420 個水果。根據上圖，兩種最暢銷的水果共售出多少個？

- A. 378
B. 273
C. 231
D. 168

Scores of Sasa and Ella in a Game
雪琪和金玲在遊戲中的得分



Scores of Sue and Annie in a Game
詠詩和燕語在遊戲中的得分



28. With reference to the above two bar charts, which of the following is correct?

- A. Compound bar chart should be used to compare their scores.
- B. The score of Ella was $\frac{4}{5}$ of that of Annie.
- C. The score of Sasa was 100 points more than that of Annie.
- D.** The score of Sue was 2 times that of Ella.

28. 對於以上兩個棒形圖，以下哪項是正確的？

- A. 應該用複合棒形圖比較他們的得分。
- B. 金玲的得分是燕語的 $\frac{4}{5}$ 。
- C. 雪琪的得分比燕語的多100分。
- D.** 詠詩的得分是金玲的2倍。

Sasa: 550 Ella: 400
Sue: 800 Annie: 1000

B. $\frac{400}{1000} = \frac{2}{5}$

C. less, $1000 - 550 = 450$

D. $800 = 400 \times 2$

雪琪: 550 金玲: 400
詠詩: 800 燕語: 1000

B. $\frac{400}{1000} = \frac{2}{5}$

C. 少, $1000 - 550 = 450$

D. $800 = 400 \times 2$

29. The shop assistant put every 20 bottles of coke on a floor of a shelf. He filled up y floors and 11 bottles of coke were left. How many bottles of coke were there?

A. $20y$

B. $20y - 11$

C. $20y + 11$

D. $y + 220$

29. 店員將 20 瓶可樂放在貨架的一層。他放滿 y 層，並餘下 11 瓶可樂。共有可樂多少瓶？

A. $20y$

B. $20y - 11$

C. $20y + 11$

D. $y + 220$

30. The breakfast shop sold m sandwiches in the afternoon. In the morning, 280 sandwiches were sold, which was 10 sandwiches fewer than 4 times of the number of sandwiches sold in the afternoon. Which of the following equations can find out the value of m ?

A. $\frac{m}{4} - 10 = 280$

B. $\frac{m}{4} + 10 = 280$

C. $4m + 10 = 280$

D. $4m - 10 = 280$

30. 早餐店下午售出 m 個三文治。上午售出 280 個三文治，比下午的 4 倍少 10 個。以下哪一道方程可找出 m 的值？

A. $\frac{m}{4} - 10 = 280$

B. $\frac{m}{4} + 10 = 280$

C. $4m + 10 = 280$

D. $4m - 10 = 280$

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，在回答本部分的問題時，須列出計算步驟。

31. (a) Mr Chan decided to run for 30km a week. He ran for $8\frac{1}{4}$ km and $6\frac{3}{10}$ km in the first day and the second day respectively. In the remaining days, how long did he need to run at least?

$$30 - 8\frac{1}{4} - 6\frac{3}{10} \quad [4 \text{ marks}]$$

$$= 15\frac{9}{20}$$

He needed to run $15\frac{9}{20}$ km at least.

(b) Mr Chan ran for 240 minutes and 320 minutes last week and this week respectively. He consumed 480 kilocalories of energy for each 30 minutes running. In these two weeks, how many kilocalories of energy did Mr Chan consume by running in total? [4 marks]

$$(240 + 320) \times (480 \div 30)$$

$$= 8960$$

Mr Chan consumed 8960 kilocalories of energy by running in total.

31. (a) 陳先生決定一個星期跑步 30km。他在第一天和第二天分別跑了 $8\frac{1}{4}$ km 和 $6\frac{3}{10}$ km。在餘下的日子，他最少須跑多少？[4分]

$$30 - 8\frac{1}{4} - 6\frac{3}{10}$$

$$= 15\frac{9}{20}$$

他最少須跑 $15\frac{9}{20}$ km。

(b) 陳先生上個星期和這個星期分別跑步 240分鐘和 320分鐘。他每跑步 30分鐘消耗 480千卡熱量。在這兩個星期，陳先生跑步共消耗熱量多少千卡？ [4分]

$$(240 + 320) \times (480 \div 30)$$

$$= 8960$$

陳先生跑步共消耗熱量 8960 千卡。

32. (a) Carol had 5 packs of sticks.

There were 42 sticks in each pack and $\frac{1}{6}$ of them were 20cm

in length. How many sticks

with 20cm in length did she have?

$$35 \\ 42 \times \frac{1}{6} \times 5 \quad (\text{Give the answer only}) \quad [2 \text{ marks}]$$

= 35

She had 35 sticks with 20cm in length.

(b) Carol wanted to use the sticks with 20cm to form a rhombus. On the answer sheet, complete this rhombus. [2 marks]

32. (a) 依彤有 5 包膠棒。每包有

42 枝膠棒，其中 $\frac{1}{6}$ 的長度是

20cm。她有長度是 20cm

的膠棒多少枝？(只須寫

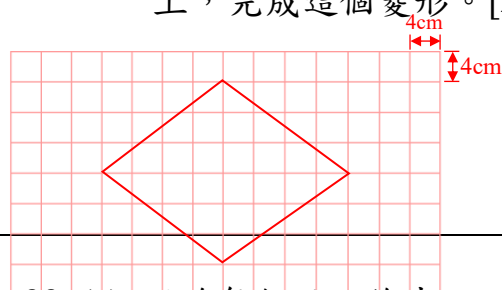
出答案) [2 分]

$$35 \\ 42 \times \frac{1}{6} \times 5$$

= 35

她有長度是 20cm 的膠棒 35 枝。

(b) 依彤打算用 20cm 的膠棒組成一個菱形。在答題紙上，完成這個菱形。[2 分]



33. (a) Aaron spent x hours on painting course and 30 hours on cleaning the beach every month. In last 6 months, he spent 276 hours in total on painting course and cleaning the beach. How long did he spend on painting course every month? (Use equation to solve the problem and show working steps) [4 marks]

$$(x+30) \times 6 = 276$$

$$x = 16$$

He spent 16 hours on painting course every month.

33. (a) 國聰每個月上繪畫課 x 小時和清潔海灘 30 小時。過去 6 個月，他共用了 276 小時上繪畫課和清潔海灘。他每個月上繪畫課用去多少時間？(須用方程列式計算，並展示步驟) [4 分]

$$(x+30) \times 6 = 276$$

$$x = 16$$

他每月上繪畫課用去 16 小時。

Environmental Donation Scheme

環保捐款計劃

After the donor's donation is deducted by \$200, the organization will use 90% of the remaining donation on the work of environmental protection.
捐贈者的捐款減去\$200後，機構會將餘額的90%用於環境保護工作上。

33. (b) Aaron donated \$900 to the environmental organization. He believed that more than \$650 from his donation would be used on the work of environmental protection according to the above donation scheme. Do you agree? Explain. [4 marks]

33. (b) 國聰向該環保機構捐贈了\$900。他認為根據以上捐款計劃，自己的捐款中有多於\$650會用於環保工作。你同意嗎？試解釋。 [4分]

$$(900 - 200) \times 90\% = 630$$

Only \$630 from Aaron's donation would be used on the work of environmental protection and was less than \$650.

(Accept any other reasonable explanation)

$$(900 - 200) \times 90\% = 630$$

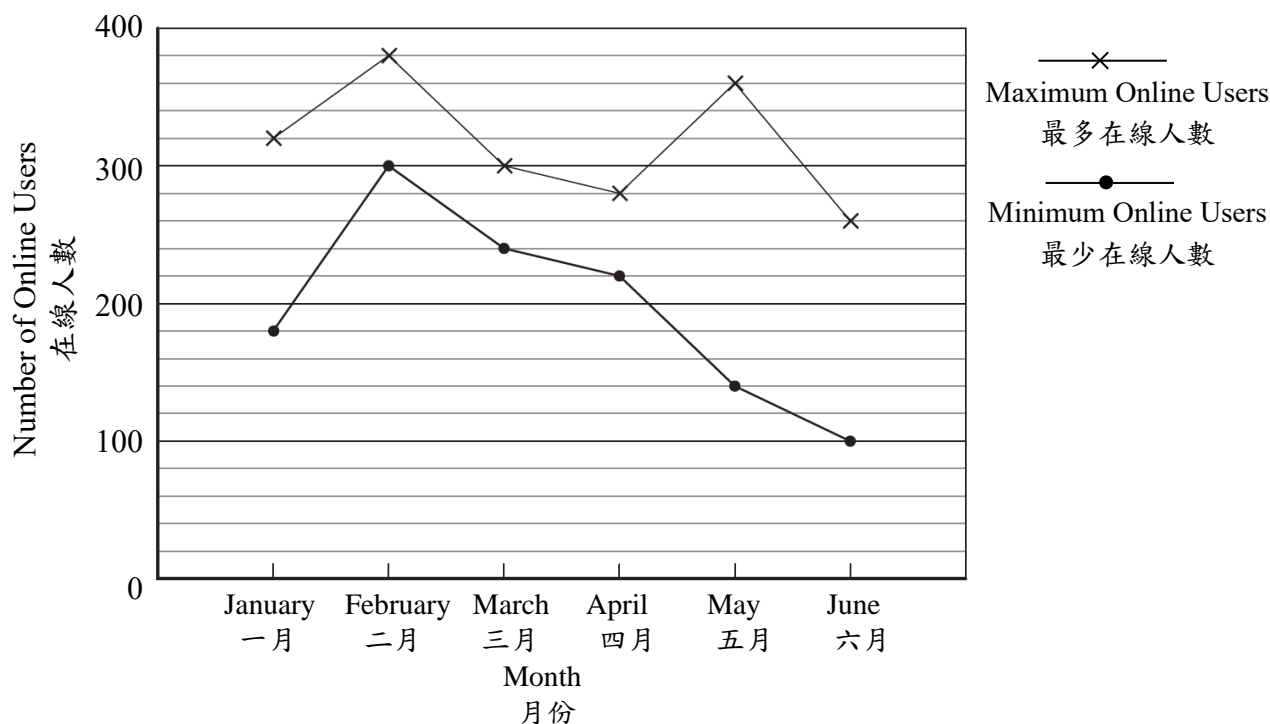
國聰的捐款中只有\$630用於環保工作上，少於\$650。

(其他合理解釋也可接受)

不同意

Number of Online Users of a Internet Forum

某討論區的在線人數



- 34. (a)** According to the above graph, which month had the greatest difference between the maximum online users and minimum online users? What was the difference? (Give the answer only)

[2 marks]
 May, 220
 $360 - 140 = 220$

- (b)** According to the above graph, what was the average of the maximum online users from April to June? [4 marks]

$(280 + 360 + 260) \div 3$
 $= 300$

The average of the maximum online users from April to June was 300.

- 34. (a)** 根據上圖，哪個月的最多在線人數和最少在線人數相差最多？相差多少？(只須寫出答案) [2分]

五, 220
 $360 - 140 = 220$

- (b)** 根據上圖，由四月至六月，最多在線人數的平均值是多少？ [4分]

$(280 + 360 + 260) \div 3$
 $= 300$

由四月至六月，最多在線人數的平均值是300人。

35. Figure 1 is the net of Figure 2.

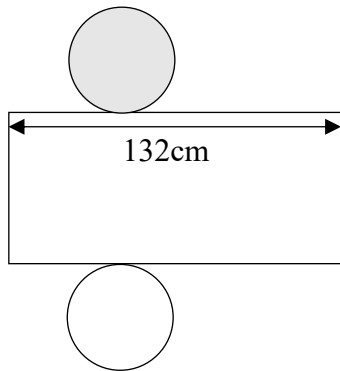


Figure 1
圖一

35. 圖一是圖二的摺紙圖樣。

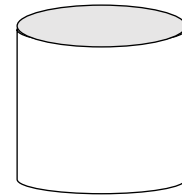


Figure 2
圖二

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

$$132 \div \frac{22}{7} \div 2$$

$$= 21$$

The radius of the grey circle is 21cm.

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

$$132 \div \frac{22}{7} \div 2$$

$$= 21$$

灰色圓的半徑是 21cm。

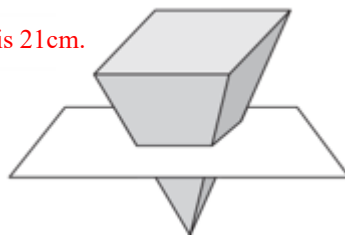


Figure 3
圖三

(b) As shown in Figure 3, a cross section being parallel to the base is cut from a quadrilateral 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?

quadrilateral
the same, not the same

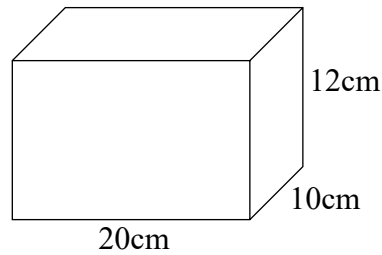
[2 marks]

(b) 圖三所示，四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和底相同？ [2 分]

四邊形
相同，不同

36. Alisa wants to buy gift boxes and colored paper.

36. 彩玉想購買禮物盒和顏色紙。



(a) The above figure is the gift box Alisa wants to buy. What is the volume of this gift box?

$$20 \times 10 \times 12 = 2400 \quad [4 \text{ marks}]$$

The volume of this gift box is 2400cm^3 .

(a) 上圖是彩玉想買的禮物盒。這個禮物盒的體積是多少？

$$20 \times 10 \times 12 = 2400 \quad [4 \text{ 分}]$$

這個禮物盒的體積是 2400cm^3 。

| Gift box 禮物盒 | Price 售價 | Color Paper 顏色紙 | Price 售價 | |
|-----------------|-------------|--|--------------------|-------|
| Each 每個 | \$36.8 | Area per piece of paper not over 每張紙的面積 不超過 | 100cm ² | \$1.2 |
| | | | 400cm ² | \$2.5 |
| | | | 900cm ² | \$3.5 |

(b) Alisa bought 3 gift boxes and 8 pieces of color paper with area of 625cm^2 each. According to the above table, how much should she pay? [4 marks]

$$36.8 \times 3 + 3.5 \times 8 = 138.4$$

She should pay \$138.4.

(b) 彩玉購買了3個禮物盒和8張面積各是 625cm^2 的顏色紙。根據上圖，她須付款多少？ [4分]

$$36.8 \times 3 + 3.5 \times 8 = 138.4$$

她須付款\$138.4。

End of Test Paper
測驗卷完