

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.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. 18 bags of sugar weigh 3.96kg altogether. What does one bag of sugar weigh on average?

- A. 22kg
- B. 2.2kg
- C. 2kg
- D. 0.22kg

1. 18袋砂糖共重3.96kg，平均每袋砂糖的重量是多少？

- A. 22kg
- B. 2.2kg
- C. 2kg
- D. 0.22kg

2. What is the 15th common multiple of 8 and 18?

- A. 1080
- B. 540
- C. 72
- D. 36

2. 8和18的第15個公倍數是多少？

- A. 1080
- B. 540
- C. 72
- D. 36

3. What is the result of multiplying the largest 2-digit number and the smallest prime number?

- A. 495
- B. 396
- C. 198
- D. 99

3. 最大的兩位數和最小的質數相乘的結果是多少？

- A. 495
- B. 396
- C. 198
- D. 99

4. If $G \times H = 68$, which of the following is **not correct**?

- A. 136 must be a common multiple of G and H .
- B. 68 is a multiple of H .
- C. G is a factor of 68.
- D. 68 must be the L.C.M. of G and H .

4. 如果 $G \times H = 68$ ，下列哪一項是**不正確**的？

- A. 136一定是 G 和 H 的公倍數。
- B. 68是 H 的倍數。
- C. G 是68的因數。
- D. 68一定是 G 和 H 的L.C.M.。

5. The population of Country M is 48 507 000, which is half of that of Country N. What is the population of Country N when corrected to the nearest ten thousand?

- A. 97 000 000
- B. 97 010 000
- C. 97 015 000
- D. 97 020 000

5. M國的人口數量是48 507 000，恰好是N國人口數量的一半。N國的人口數量，如準確至萬人，應是多少？

- A. 97 000 000
- B. 97 010 000
- C. 97 015 000
- D. 97 020 000

6. A box of laundry powder weighs 30kg. After dividing it into bags of 1.1kg each, the shopkeeper put the remaining laundry powder into one of the bags. What is the weight of this bag of laundry powder?

- A. 1.4kg
- B. 1.1kg
- C. 0.8kg
- D. 0.3kg

6. 一箱洗衣粉共重30kg，店主將洗衣粉每1.1kg包裝成一袋後，再把餘下的洗衣粉放進其中一袋中，這袋洗衣粉共重多少？

- A. 1.4kg
- B. 1.1kg
- C. 0.8kg
- D. 0.3kg

7. If X is divisible by 4 and Y is divisible by 7, which of the following expressions must be divisible by 14?

- I. $X \times Y$
 - II. $X + Y$
 - III. $6 \times Y$
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III

7. 如果 X 可被 4 整除， Y 可被 7 整除，以下哪項必定能被 14 整除？

- I. $X \times Y$
 - II. $X + Y$
 - III. $6 \times Y$
- A. 只有 I 及 II
 - B. 只有 I 及 III
 - C. 只有 II 及 III
 - D. I、II 及 III

8. The capacity of a bottle is 0.36L. Ada wrote the capacity as 0.63L by mistake. What is the difference in value between the two '6' s?

- A. 0.03
- B. 0.12
- C. 0.27
- D. 0.54

8. 一個瓶子的容量是 0.36L。麗詩卻誤寫成 0.63L，兩個「6」的值相差多少？

- A. 0.03
- B. 0.12
- C. 0.27
- D. 0.54

9. There are 800 lockers in a school. If there are 28 students in each class and each student has their own locker, how many students are there in the school at most?

- A. 800
- B. 792
- C. 784
- D. 756

9. 某小學共有 800 個儲物櫃，如果每班有 28 名學生，每名學生擁有一個儲物櫃，全校最多有學生多少名？

- A. 800
- B. 792
- C. 784
- D. 756

Game 1 遊戲一	Total Score
	總分：12
	Score Obtained
	得分：6

Game 2 遊戲二	Total Score
	總分：35
	Score Obtained
	得分：21

Game 3 遊戲三	Total Score
	總分：20
	Score Obtained
	得分：16

10. Joseph got the above scores in three games. A player would win the game if he got 80% or above of the total score. Which game(s) did Joseph win?

- A. Game 2 only
- B. Game 3 only
- C. Game 2 and Game 3 only
- D. all the three games

10. 志雲在三個遊戲中取得以上的得分。如果得分達到總分的80%或以上，才算勝出該個遊戲。志雲在哪個/哪幾個遊戲勝出？

- A. 只有遊戲二
- B. 只有遊戲三
- C. 只有遊戲二及遊戲三
- D. 三個遊戲

11. The table below shows how William spent his pocket money last month.

Expense 支出	Snack 零食	Stationery 文具	Saving 儲蓄	Toy 玩具
Portion of Pocket Money 零用錢部分	$\frac{3}{8}$	$\frac{7}{25}$	16.5%	0.18

11. 下表顯示子軒上月零用錢的支出分布。

On which expense item did he spend the least?

- A. Snack
- B. Stationery
- C. Saving
- D. Toy

他在哪一個項目支出得最少？

- A. 零食
- B. 文具
- C. 儲蓄
- D. 玩具

Weight of fruits transported 運輸的水果重量	Charge 收費
For each kilogram of the first 100kg 首 100 公斤的每「公斤」	\$1.2
For each kilogram exceeding 100kg 超過 100 公斤後的每「公斤」	\$2.4

(1-kg rate is charged for weight less than 1kg)

(不足 1 公斤亦以 1 公斤收費計算)

12. Mr Lee has 519.8kg of fruits to be transported. According to the above table, how much should he pay?

- A. \$1872
- B. \$1128
- C. \$1008
- D. \$624

12. 李先生有 519.8kg 水果需要運輸，根據上表，他應付款多少？

- A. \$1872
- B. \$1128
- C. \$1008
- D. \$624

13. From 29th March to 2nd April, Fanny worked in a supermarket and each day she worked from 9:00 a.m. to 5:30 p.m. If the wage for working in the supermarket was \$45.6 for an hour, how much did Fanny earn?

- A. \$2713.2
- B. \$2166
- C. \$1938
- D. \$1550.4

13. 小芳從 3 月 29 日至 4 月 2 日在超級市場工作，每天由 9:00 a.m. 工作至 5:30 p.m.。如果在超級市場工作每小時的薪金是 \$45.6，小芳獲得薪金多少？

- A. \$2713.2
- B. \$2166
- C. \$1938
- D. \$1550.4

14. Adam has 25 pieces of \$5 and \$10 cash coupon. They are worth \$175 in total. If Adam has 5 pieces more \$5 cash coupon than \$10 cash coupon. How many pieces of \$10 cash coupon does he have?

- A. 5
- B. 10
- C. 15
- D. 20

14. 禮雲有\$5和\$10的現金券共25張，它們的總值是\$175。\$5的現金券比\$10的多5張，他有\$10的現金券多少張？

- A. 5
- B. 10
- C. 15
- D. 20

15. Aaron joined the credit card reward points scheme. He could get 2.5 reward points for every \$5 purchased. If he spent \$380 with his credit card, how many reward points would he get?

- A. 190
- B. 380
- C. 540
- D. 760

15. 奕朗參加信用卡積分獎賞計劃，他每消費\$5，便可以獲得2.5分積分。如果奕朗用信用卡消費了\$380，他將獲得積分多少分？

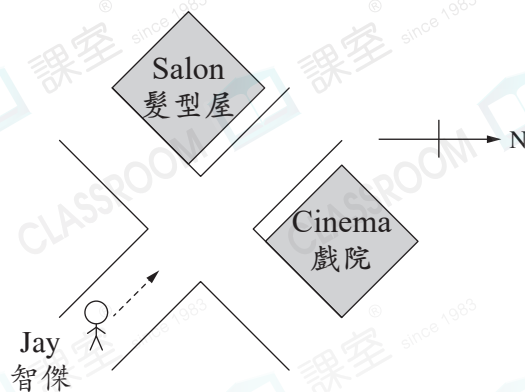
- A. 190
- B. 380
- C. 540
- D. 760

16. Which of the following 2-D shapes **is not** an axially symmetric shape?

- A. rhombus
- B. square
- C. right-angled trapezium
- D. equilateral triangle

16. 下列哪一種平面圖形**不是**軸對稱圖形？

- A. 菱形
- B. 正方形
- C. 直角梯形
- D. 等邊三角形



17. In the above figure, when Jay arrives at the junction, he will turn left and walk on. In which direction will he walk then?

- A. southwest
- B. east
- C. northeast
- D. north

17. 上圖中，智傑步行至分岔路口時，他會左轉繼續步行。他跟着向哪一方步行？

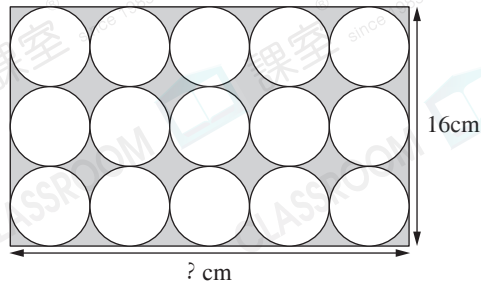
- A. 西南
- B. 東
- C. 東北
- D. 北

18. Which of the following is **incorrect**?

- A. A parallelogram can be formed by fitting 2 isosceles trapeziums of the same size and same shape.
- B. A rhombus can be formed by fitting 2 isosceles triangles of the same size and same shape.
- C. A square can be formed by fitting 2 isosceles right-angled triangles of the same size.
- D. A triangle can be formed by fitting 3 equilateral triangles of the same size.

18. 下列哪一項是**錯誤**的？

- A. 兩個大小和形狀相同的等腰梯形可以拼出一個平行四邊形。
- B. 兩個大小和形狀相同的等腰三角形可以拼出一個菱形。
- C. 兩個大小相同的等腰直角三角形可以拼出一個正方形。
- D. 三個大小相同的等邊三角形可以拼出一個三角形。

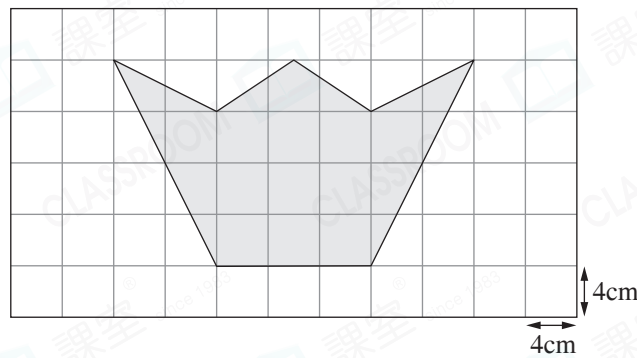


19. A rectangular box can hold 15 circular lenses of the same size, as shown above. This box is 16cm wide. What is the length of the box?

- A. $3\frac{1}{5}$ cm
- B. $5\frac{1}{3}$ cm
- C. $21\frac{1}{3}$ cm
- D. $26\frac{2}{3}$ cm

19. 一個長方形盒子可容納 15 個大小相同的圓形鏡片，如上圖所示。這盒子的闊是 16cm，它的長是多少？

- A. $3\frac{1}{5}$ cm
- B. $5\frac{1}{3}$ cm
- C. $21\frac{1}{3}$ cm
- D. $26\frac{2}{3}$ cm

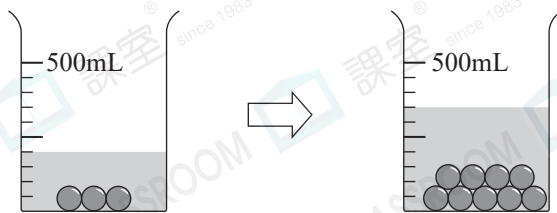


20. In the above figure, what is the area of the shaded part?

- A. 264cm^2
- B. 168cm^2
- C. 144cm^2
- D. 120cm^2

20. 上圖中，陰影部分的面積是多少？

- A. 264cm^2
- B. 168cm^2
- C. 144cm^2
- D. 120cm^2

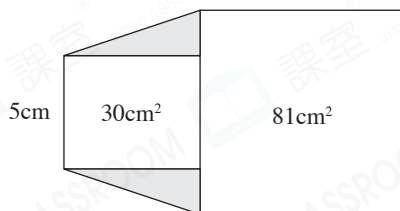


21. The container held some water and 3 iron balls originally. After 6 iron balls were added to the container, the water level in the container rose, as shown above. What was the total volume of these 9 iron balls?

- A. 75cm^3
- B. 150cm^3
- C. 225cm^3
- D. 350cm^3

21. 如上圖所示，容器內原先盛載着一些水和3個鐵球，加入6個鐵球後，容器內的水位上升。這9個鐵球的總體積是多少？

- A. 75cm^3
- B. 150cm^3
- C. 225cm^3
- D. 350cm^3

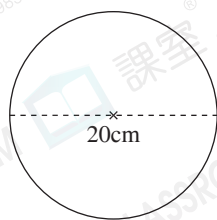


22. The above figure is formed by a rectangle, a square and two triangles of the same size. What is the area of each triangle?

- A. 6cm^2
- B. 9cm^2
- C. 12cm^2
- D. 18cm^2

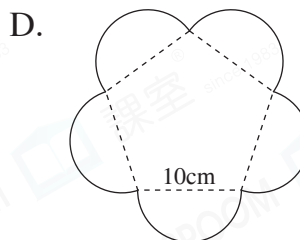
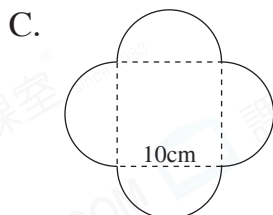
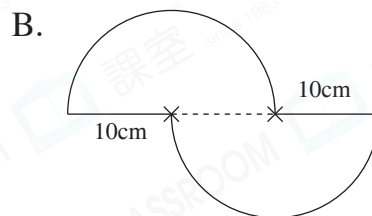
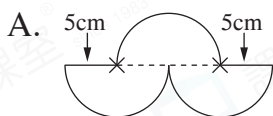
22. 上圖是由一個長方形、一個正方形和兩個大小相同的三角形組成。每個三角形的面積是多少？

- A. 6cm^2
- B. 9cm^2
- C. 12cm^2
- D. 18cm^2



23. Each of the following figures is formed by some semi-circles or a figure of side 10cm and semi-circles together. Which figure below has the same perimeter as the circumference of the circle above?

23. 以下各圖形是由一些半圓或由邊長10cm的圖形和半圓組成。哪一個圖形的周界和上圖的圓周相同？



24. Each lap of the running track is 400m long. Alex ran $4\frac{1}{2}$ laps at the running track at an average speed of 3.6m/s. How much time did he use?

24. 跑步徑每圈長400m。子宣以3.6m/s的平均速率在該跑步徑跑了 $4\frac{1}{2}$ 圈。他用了多少時間？

- A. 200 seconds
- B. 500 seconds
- C. 1440 seconds
- D. 1800 seconds

- A. 200 秒
- B. 500 秒
- C. 1440 秒
- D. 1800 秒

25. A Marathon was held in City X. The distance between starting point and finishing point was 42km. A runner started at 08:30 and ran at an average speed of 15km/h. When did he arrive at the finishing point?

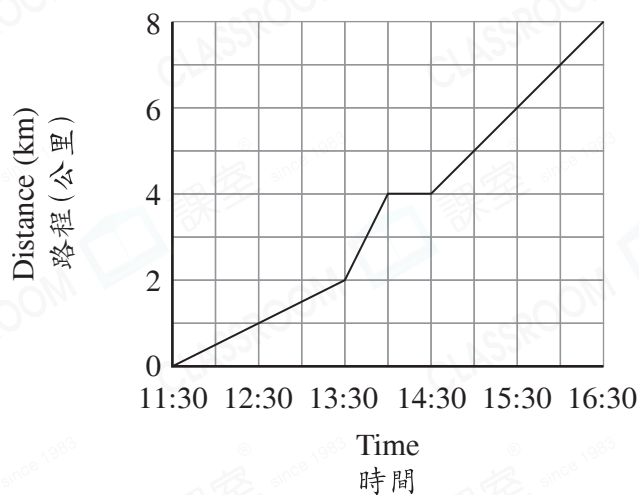
- A. 10:08
- B. 10:18
- C. 11:18
- D. 12:08

25. 甲城舉行馬拉松比賽，起點和終點之間的路程是42km。某參賽者在08:30出發，以15km/h的平均速率奔跑，他在什麼時間到達終點？

- A. 10:08
- B. 10:18
- C. 11:18
- D. 12:08

Travel Graph of Mr Lee

李先生的行程圖



26. From the graph above, in which period did Mr Lee walk the fastest?

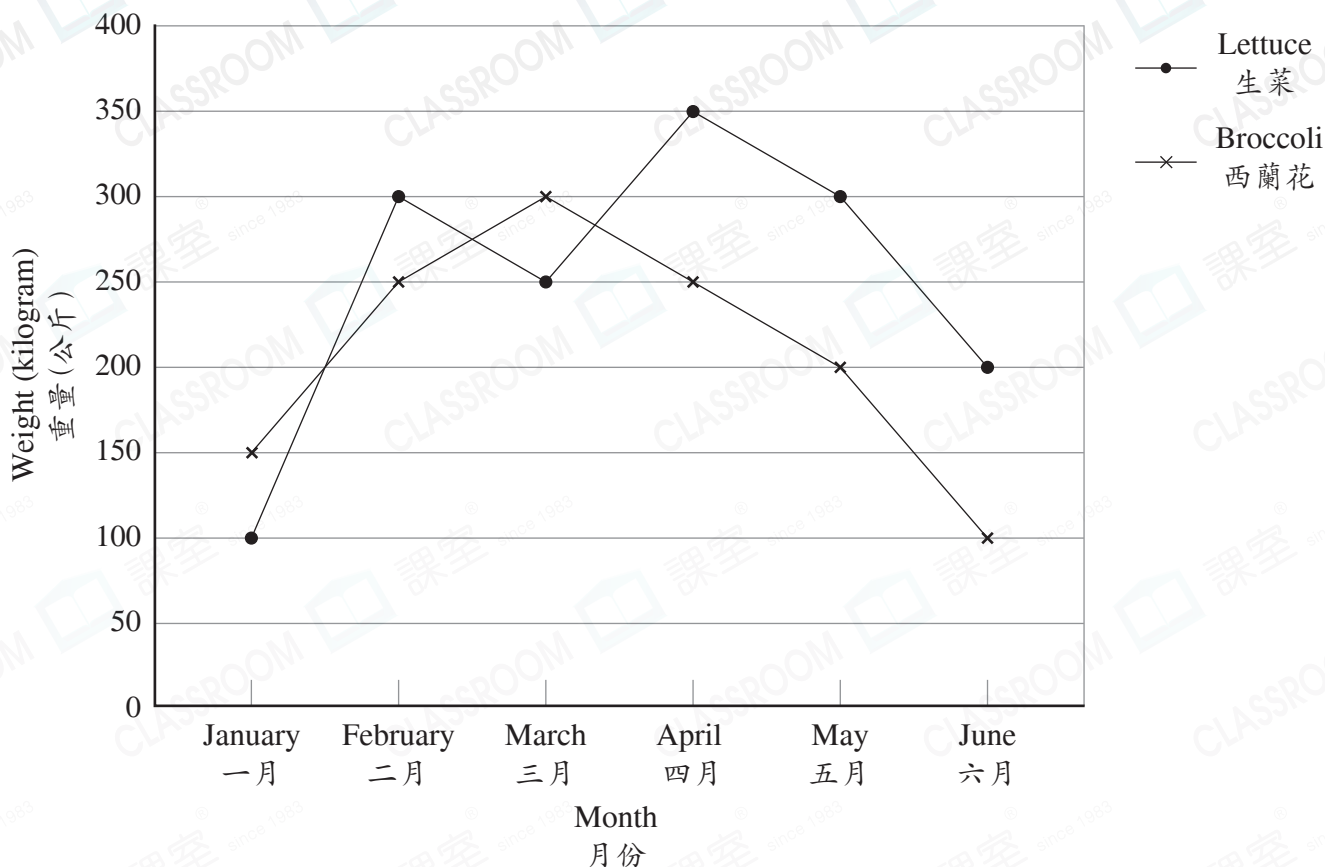
- A. 11:30 – 13:30
- B. 13:30 – 14:00
- C. 14:00 – 14:30
- D. 14:30 – 16:30

26. 根據上圖，李先生在哪一段時間走得最快？

- A. 11:30 – 13:30
- B. 13:30 – 14:00
- C. 14:00 – 14:30
- D. 14:30 – 16:30

The Weights of Lettuce and Broccoli Purchased by a Restaurant

某餐廳購買的生菜和西蘭花的重量



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

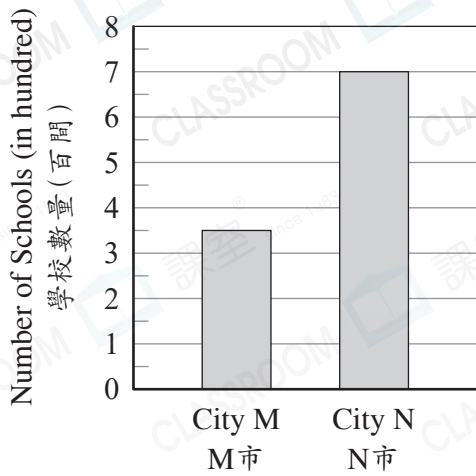
- A. The restaurant bought more lettuce than broccoli every month.
- B. The restaurant bought 200kg more lettuce than broccoli in May.
- C. From January to April, the restaurant bought 50kg less broccoli than lettuce.
- D. The total weight of lettuce and broccoli bought by the restaurant in June is 350kg.

27. 根據上圖，以下哪一項是正確的？

- A. 餐廳每月購買的生菜比西蘭花多。
- B. 餐廳五月購買的生菜比西蘭花多 200kg。
- C. 在一月至四月，餐廳購買的西蘭花比生菜少 50kg。
- D. 餐廳六月購買了生菜和西蘭花共 350kg。

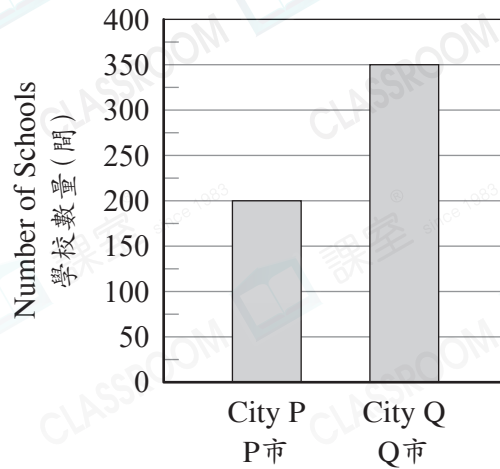
Number of Schools in City M and City N

M市和N市的學校數量



Number of Schools in City P and City Q

P市和Q市的學校數量



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

- A. Compound bar chart should be used to compare the number of schools in these cities.
- B. The number of schools in City M was $\frac{7}{8}$ of that in City P.
- C. The number of schools in City Q was 350 less than that in City N.
- D. The number of schools in City N was 1.75 times that in City P.

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這些城市的學校數量。
- B. M市的學校數量是P市的 $\frac{7}{8}$ 。
- C. Q市的學校數量比N市的少350間。
- D. N市的學校數量是P市的1.75倍。

29. The One day trip to Macau charges at \$ m per person. The travel agency is providing an offer of 'for five people joining the trip together, it just costs \$99 for the fifth one.' Kyle and 4 friends apply for the trip together. How much does each of them pay on average?

- A. $\$ \frac{4m + 99}{5}$
- B. $\$ \frac{5m + 99}{4}$
- C. $\$ \frac{4m - 99}{5}$
- D. $\$ \frac{5m - 99}{4}$

30. If $6y + 5y = 0.33$, what is the value of $y \div 10\%$?

- A. 30
- B. 11
- C. 0.3
- D. 0.03

29. 澳門一日遊每位的報名費是 \$ m ，旅行社現提供「五人同時報名，第五位只須付 \$99」的優惠。啟霖和4位朋友一起報名澳門一日遊，他們平均每人須付款多少？

- A. $\$ \frac{4m + 99}{5}$
- B. $\$ \frac{5m + 99}{4}$
- C. $\$ \frac{4m - 99}{5}$
- D. $\$ \frac{5m - 99}{4}$

30. 如果 $6y + 5y = 0.33$ ，那麼 $y \div 10\%$ 是多少？

- A. 30
- B. 11
- C. 0.3
- D. 0.03

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。

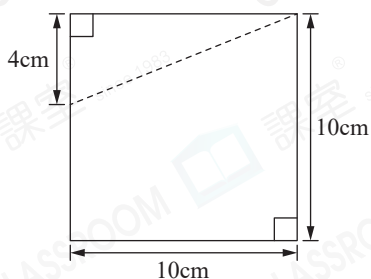


Figure 1

圖一

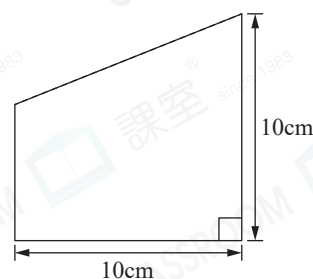


Figure 2

圖二

31. Sophia is designing a greeting card. After she cuts along the dotted line in Figure 1 to remove a triangle, a trapezium is obtained as shown in Figure 2.

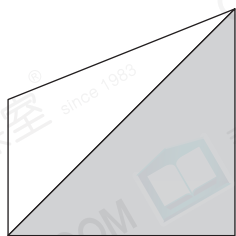
(a) What is the area of the trapezium?
(Give the answer only) [2 marks]

(b) Sophia used the trapezium of Figure 2 to design two greeting cards as shown below. She believes that the areas of the shaded parts in the two designs are not the same. Do you agree? Explain. [4 marks]

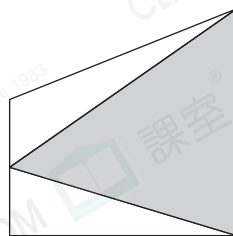
31. 菲雅正在設計一張賀卡。她沿着圖一的虛線剪去一個三角形後，得出圖二所示的梯形。

(a) 梯形的面積是多少？(只須寫出答案) [2分]

(b) 下圖顯示菲雅利用圖二梯形所設計的兩張賀卡。她認為兩個設計的陰影部分的面積不一樣。你同意嗎？試解釋。 [4分]



Design 1
設計一



Design 2
設計二

32. The following table shows the price of the amusement park ticket.

32. 下表顯示遊樂園門票的售價。

The Price of the Amusement Park Ticket
遊樂園門票的售價

	Fast track ticket 快速通行票	Ordinary ticket 普通票
Adult 成人	\$80	\$28.9
Child (aged 11 or below) 小童(11歲或以下)	\$60	\$14.5

(a) What is the percentage of the price of fast track ticket for a child to that of an adult? (Give the answer only) [2 marks]

(a) 小童快速通行票的售價是成人的百分之幾？(只須寫出答案) [2分]

(b) Mr and Mrs Chan went to the amusement park with 3 daughters aged below 11. They bought the ordinary tickets, how much did they pay in total? (Give the answer only) [2 marks]

(b) 陳先生和陳太太帶同3名小於11歲的女兒去遊樂園玩。他們購買了普通票，共付了多少？(只須寫出答案) [2分]

(c) Ms Wong went to the amusement park with 2 adults and 3 children together. She bought the fast track tickets and could pay 20% less. How much did she pay in total? [4 marks]

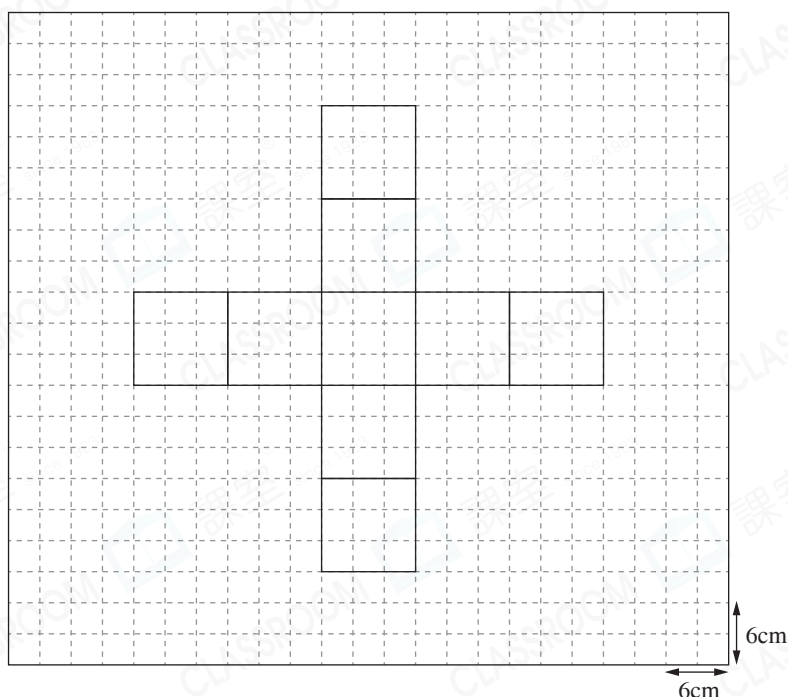
(c) 王小姐帶同2名成人和3名小童到遊樂園玩。她購買快速通行票，減免了20%的費用。她共付了多少？ [4分]

33. Zora had savings of \$y originally. After donating \$250 to the Red Cross Society, 40% of the rest were used to buy books. If these books cost \$120, how much savings did Zora have originally? (Use equation to solve the problem and show your working)

[4 marks]

33. 紫喬原有儲蓄 \$y，捐贈了 \$250 給紅十字會後，再用了餘下的 40% 購買書籍。如果購買書籍共用了 \$120，紫喬原有儲蓄多少？(須用方程列式計算，並展示步驟)

[4分]



34. (a) The figure above is made up of 9 squares of the same size. On the answer sheet, draw all the axes of symmetry of the figure.

[2 marks]

(b) If one square of the same size is added, the figure becomes a net of a cuboid. On the answer sheet, draw the required square.

[2 marks]

34. (a) 上圖是由9個大小相同的正方形組成的。在答題紙上畫出上面圖形的所有對稱軸。

[2分]

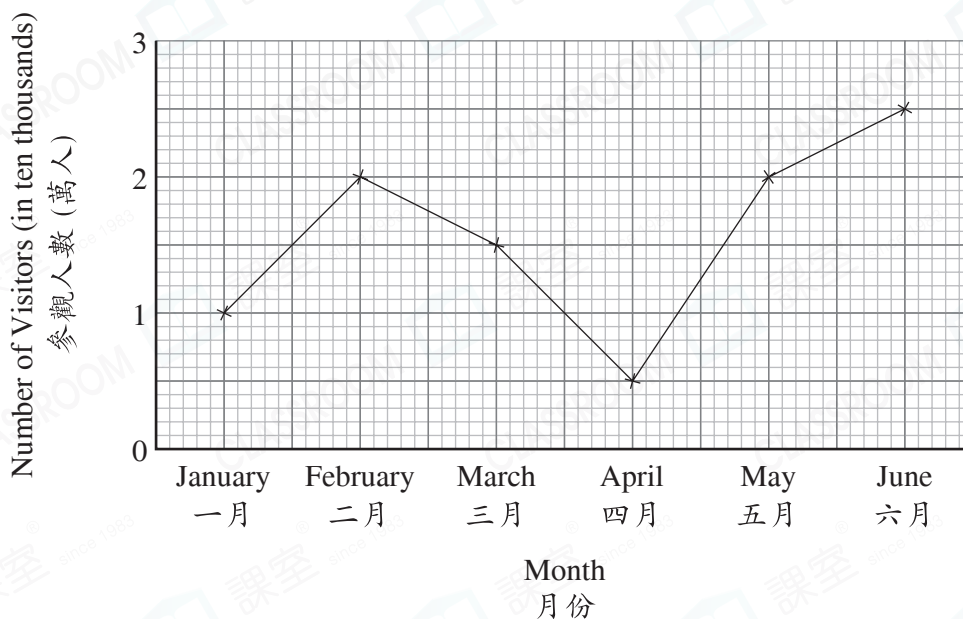
(b) 在圖形上加上一個大小相同的正方形，它便成為一個長方體的摺紙圖樣。在答題紙上畫出所需的正方形。 [2分]

34. (c) After folding up the net in part (b) to make a cuboid, what is its volume? (Give the answer only) [2 marks]

34. (c) 把(b)部分的摺紙圖樣摺成長方體後，它的體積是多少？(只須寫出答案) [2分]

Number of Visitors to a Museum in the First Half Year

某展覽館上半年的參觀人數



35. (a) How many times of the number of visitors in April is that in June? (Give the answer only) [2 marks]
- (b) What is the decrease in percentage of the number of visitors in March when compared with February? [4 marks]
- (c) What is the total number of visitors in the first half year? (Give the answer only) [2 marks]

35. (a) 六月的參觀人數是四月的多少倍？(只須寫出答案)[2分]
- (b) 三月的參觀人數比二月的少百分之幾？ [4分]
- (c) 展覽館上半年的總參觀人數是多少？(只須寫出答案) [2分]

Pong's Convenience Store **龐氏便利店**

One stamp will be rewarded for any purchase of \$6.5. Members can enjoy the following offers:

購物每滿 \$6.5 可獲贈印花一個，會員可享有以下優惠：

Offer 1 優惠 1	5 stamps will be rewarded for any purchase of \$30 購物每滿 \$30 可獲贈印花 5 個
Offer 2 優惠 2	12 stamps will be rewarded for any purchase of \$60 購物每滿 \$60 可獲贈印花 12 個

5 stamps are needed for redeeming a cup for free.
顧客可用 5 個印花免費換領一個杯子。

36. (a) Carrie was not a member of Pong's Convenience Store. She spent \$78. How many cups could she redeem at most and how many stamps were left?

[4 marks]

- (b) Julia is a member of Pong's Convenience Store. If she spends \$240, can she redeem 10 cups? Explain.

[4 marks]

36. (a) 凱麗 不是龐氏便利店的會員。她購物用去 \$78，她最多可換領杯子多少個？餘下印花多少個？

[4分]

- (b) 立美 是龐氏便利店的會員。如果購物用去 \$240，她能換領 10 個杯子嗎？試解釋。

[4分]