

HONG KONG ATTAINMENT TEST

香港學科測驗

Pre-Secondary One

中一入學前

Mathematics

數學

Mock Paper 1

模擬試卷(一)

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. What is the least number to be subtracted from 420 so that it is divisible by 16?

- A. 2
- B. 4
- C. 12
- D. 26

1. 420最少要減去多少才可以被16整除？

- A. 2
- B. 4
- C. 12
- D. 26

2. Jason earned \$95 every day from his part-time job. How much did he earn from 28th July to 15th August?

- A. \$1235
- B. \$1330
- C. \$1710
- D. \$1805

2. 祖峰每天兼職的收入是\$95。由7月28日至8月15日，他兼職的總收入是多少？

- A. \$1235
- B. \$1330
- C. \$1710
- D. \$1805

3.

$$1\frac{2}{3} + \frac{5}{8} - 2\frac{1}{6} = ?$$

- A. $\frac{1}{8}$
- B. $\frac{1}{3}$
- C. $3\frac{5}{24}$
- D. $4\frac{11}{24}$

4. What is the 50th common multiple of 4 and 10?

- A. 2000
- B. 1000
- C. 200
- D. 20

4. 4和10的第50個公倍數是多少？

- A. 2000
- B. 1000
- C. 200
- D. 20

5. The profit of a company in July is about \$3 500 000 when corrected to the nearest hundred thousand. Which of the following can be the largest profit of the company?

- A. \$3 599 999
- B. \$3 554 999
- C. \$3 549 999
- D. \$3 450 000

5. 取近似值至十萬位後，某公司7月份的利潤約是\$3 500 000。下列哪一項可能是該公司利潤的最大值？

- A. \$3 599 999
- B. \$3 554 999
- C. \$3 549 999
- D. \$3 450 000

$$8\frac{3}{4}$$

$$8\frac{11}{12}$$

$$?$$

$$9\frac{1}{3}$$

6. The above four numbers are arranged from the smallest value to the largest value. Which of the following can be the third number?

- A. $8\frac{1}{4}$
- B. $8\frac{2}{3}$
- C. $9\frac{1}{12}$
- D. $9\frac{5}{6}$

6. 以上四個數是按數值由小至大排列，以下哪一項可能是第三個數？

- A. $8\frac{1}{4}$
- B. $8\frac{2}{3}$
- C. $9\frac{1}{12}$
- D. $9\frac{5}{6}$

7. All factors of R are:

1, 3, 13, R

Which of the following **is not** a multiple of R ?

- A. 39
- B. 65
- C. 117
- D. 195

7. R 的所有因數是：

1、3、13、 R

以下哪一個 **不是** R 的倍數？

- A. 39
- B. 65
- C. 117
- D. 195

8. During a sale in a supermarket, all foods are 'Buy 5 and get 1 extra free'. A loaf of bread cost \$18 originally. Fred bought a dozen loaves of bread. By how much was a loaf of bread cheaper on average?

- A. \$3
- B. \$5
- C. \$9
- D. \$15

8. 超級市場舉行大減價，所有食品「買五送一」。每條麵包原價 \$18，振威買了一打麵包，平均每條麵包便宜了多少？

- A. \$3
- B. \$5
- C. \$9
- D. \$15

9. In the number 50.080, which place values of '0' can be deleted?

- I. units
- II. tenths
- III. thousandths

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

9. 在 50.080 這個數中，哪一個/些位值的「0」可被刪掉？

- I. 個位
- II. 十分位
- III. 千分位

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

10. The student number of Ken is 15. The student number of Tina is a factor of that of Ken. It is given that the student numbers of Ken and Tina are not the same. List all the possible student numbers of Tina.

- A. 1, 3
- B. 3, 5
- C. 1, 3, 5
- D. 1, 3, 5, 15

10. 智誠的學號是15，而麗娜的學號剛好是智誠的因數。已知智誠和麗娜的學號不相同，列出麗娜所有可能的學號。

- A. 1、3
- B. 3、5
- C. 1、3、5
- D. 1、3、5、15

11. There are 230 mooncakes. If each box can hold a maximum of 8 mooncakes, how many boxes at least are needed for holding all the mooncakes?

- A. 17
- B. 18
- C. 28
- D. 29

11. 現有230個月餅。若每個盒子最多可裝入8個月餅，最少需要盒子多少個才可把所有月餅裝好？

- A. 17
- B. 18
- C. 28
- D. 29

12. In a swimming race, the result of the first runner-up was $35\frac{5}{6}$ seconds. The champion swam $1\frac{1}{3}$ seconds faster than the first runner-up. What was the result of the champion?

- A. $37\frac{1}{6}$ seconds
- B. $36\frac{1}{6}$ seconds
- C. $34\frac{2}{3}$ seconds
- D. $34\frac{1}{2}$ seconds

12. 在游泳比賽中，亞軍的成績是 $35\frac{5}{6}$ 秒，冠軍比亞軍快 $1\frac{1}{3}$ 秒，冠軍的成績是多少？

- A. $37\frac{1}{6}$ 秒
- B. $36\frac{1}{6}$ 秒
- C. $34\frac{2}{3}$ 秒
- D. $34\frac{1}{2}$ 秒

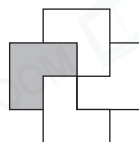
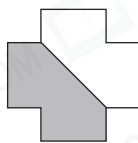
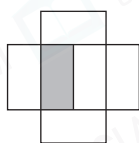
13. There are altogether 423 ball pens and pencils. When every 13 ball pens are put into a box, there are 16 boxes with 2 ball pens left. If every 11 pencils are put into a box, how many boxes of pencils will there be at most? How many pencils are left?

- A. 20 boxes with 0 pencil left
- B. 20 boxes with 6 pencils left
- C. 19 boxes with 7 pencils left
- D. 19 boxes with 4 pencils left

13. 原子筆和鉛筆共有423枝。原子筆每13枝一盒，可分為16盒，餘下2枝。如果鉛筆每11枝一盒，最多可分為多少盒？還餘鉛筆多少枝？

- A. 20盒，餘0枝
- B. 20盒，餘6枝
- C. 19盒，餘7枝
- D. 19盒，餘4枝

14. There were three figures of the same size. Michelle used different ways to divide each of them into equal portions and shaded some portions (as shown below).



14. 雪兒把三個大小相同的圖形，用不同的方法等分，然後加上陰影（如下圖所示）。

If each  stands for 1, what

is the value of the sum of the shaded parts drawn by Michelle?

- A. $\frac{1}{12}$
- B. $\frac{11}{12}$
- C. 1
- D. $3\frac{11}{12}$

如果每個  表示1，雪兒所

畫的陰影部分，相加後表示的值是多少？

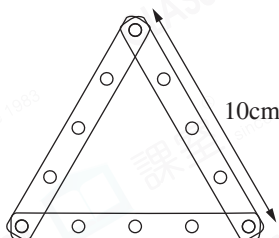
- A. $\frac{1}{12}$
- B. $\frac{11}{12}$
- C. 1
- D. $3\frac{11}{12}$

15. The airline regulates that each passenger should not carry luggage exceeding 20kg on board. Jim brought two luggage items and they altogether exceeded the weight limit by $2\frac{5}{8}$ kg. If one of them weighs $8\frac{3}{4}$ kg, what is the weight of the other one?

- A. $8\frac{5}{8}$ kg
- B. $11\frac{1}{4}$ kg
- C. $13\frac{7}{8}$ kg
- D. $16\frac{1}{2}$ kg

15. 航空公司規定每位乘客的行李不可超過20kg。光耀的兩件行李共超重了 $2\frac{5}{8}$ kg，如果其中一件行李重 $8\frac{3}{4}$ kg，另一件重多少？

- A. $8\frac{5}{8}$ kg
- B. $11\frac{1}{4}$ kg
- C. $13\frac{7}{8}$ kg
- D. $16\frac{1}{2}$ kg

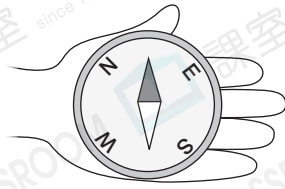


16. The above figure is an equilateral triangle formed by geo-strips. If a geo-strip with the length 10cm is added to form a quadrilateral, which of the following properties this quadrilateral **cannot** have?

- A. four sides are equal
- B. four angles are equal
- C. only one pair of opposite sides are parallel
- D. two pairs of opposite sides are parallel

16. 上圖是由幾何條砌成的等邊三角形，如果添加一條長10cm的幾何條後，變成一個四邊形，這個四邊形**不可能**具有下列哪一項特性？

- A. 四邊長度相等
- B. 四個角相等
- C. 只有一組對邊平行
- D. 兩組對邊平行



17. Rocky puts the compass in his palm. The white pointer of the compass is pointing south, as shown above. What direction is his little finger pointing?

- A. east
- B. south
- C. southeast
- D. southwest

17. 文傑把指南針放在掌上，指南針白色的指針指向南方，如上圖所示。他的尾指是指向哪一方？

- A. 東
- B. 南
- C. 東南
- D. 西南

18. The library is in the northwest of the market. What is the direction of the market from the library?

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

18. 圖書館在街市的西北方，街市在圖書館的哪一方？

- A. 東南
- B. 東北
- C. 西南
- D. 西北

19. A rectangle is cut into two figures of the same size and same shape. Which of the following shapes **cannot** be obtained?

- A. equilateral triangle
- B. rectangle
- C. trapezium
- D. right-angled triangle

19. 把一個長方形分割成兩個大小和形狀相同的圖形，以下哪一種圖形是**不可能**分割得到的？

- A. 等邊三角形
- B. 長方形
- C. 梯形
- D. 直角三角形

20. Martin stands facing the southwest. He then turns right for one right angle. Which direction is he facing now?

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

20. 銘天面向西南方站立，然後右轉一個直角，他現在面向哪一方？

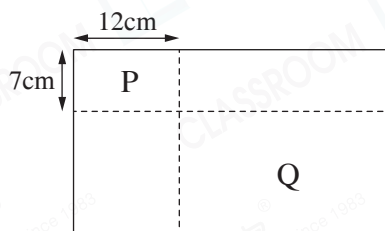
- A. 東南
- B. 東北
- C. 西南
- D. 西北

21. The lengths of two sides of an isosceles triangle are 6cm and 18cm respectively. What is the perimeter of the triangle?

- A. 21cm
- B. 24cm
- C. 30cm
- D. 42cm

21. 一個等腰三角形其中兩邊的長度分別是6cm和18cm，這個三角形的周界是多少？

- A. 21cm
- B. 24cm
- C. 30cm
- D. 42cm

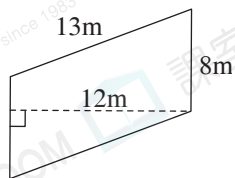


22. Two dotted lines are drawn in the above figure. Two rectangles P and Q are obtained. The length and width of P are half of those of Q respectively. What is the perimeter of the figure?

- A. 57cm
- B. 76cm
- C. 114cm
- D. 152cm

22. 在上圖畫上兩條虛線，得出長方形P和Q。P的長和闊分別是Q的一半，整個圖形的周界是多少？

- A. 57cm
- B. 76cm
- C. 114cm
- D. 152cm



23. In the above figure, what is the area of the parallelogram?

A. 48m^2

B. 52m^2

23. 上圖中，平行四邊形的面積是多少？

C. 96m^2

D. 104m^2

24. A trapezium has a height of 4m and area of 32m^2 . What is the sum of its upper and lower bases?

A. 8m

B. 16m

C. 32m

D. 64m

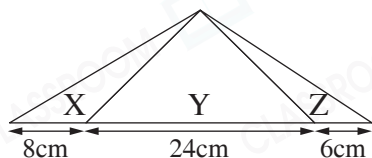
24. 一個梯形的高是4m，面積是 32m^2 ，它的上底和下底之和是多少？

A. 8m

B. 16m

C. 32m

D. 64m



25. According to the above figure, which of the following is correct?

A. The area of X is the same as that of Z.

B. The area of X is 2 times that of Z.

C. The area of Y is 4 times that of Z.

D. The area of Y is the same as the total area of X and Z.

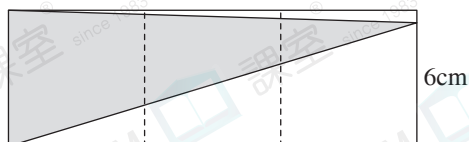
25. 根據上圖，下列哪一項是正確的？

A. X 的面積和 Z 的相同。

B. X 的面積是 Z 的 2 倍。

C. Y 的面積是 Z 的 4 倍。

D. Y 的面積等於 X 和 Z 的總面積。



26. The above figure is formed by three squares with sides 6cm each. What is the area of the shaded part?

- A. 108cm^2
- B. 54cm^2
- C. 48cm^2
- D. 36cm^2

26. 上圖是由三個邊長6cm的正方形組成，陰影部分的面積是多少？

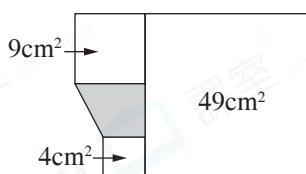
- A. 108cm^2
- B. 54cm^2
- C. 48cm^2
- D. 36cm^2

27. A bus set off from the station at 19:35 and reached the pier after 58 minutes. When did it reach the pier?

- A. 20:23
- B. 20:33
- C. 20:35
- D. 21:33

27. 一輛巴士在19:35從車站開出，行駛了58分鐘後到達碼頭，即在什麼時候到達碼頭？

- A. 20:23
- B. 20:33
- C. 20:35
- D. 21:33



28. The above figure is formed by 3 squares and 1 trapezium, what is the area of the shaded part?

- A. 5cm^2
- B. 10cm^2
- C. 17cm^2
- D. 35cm^2

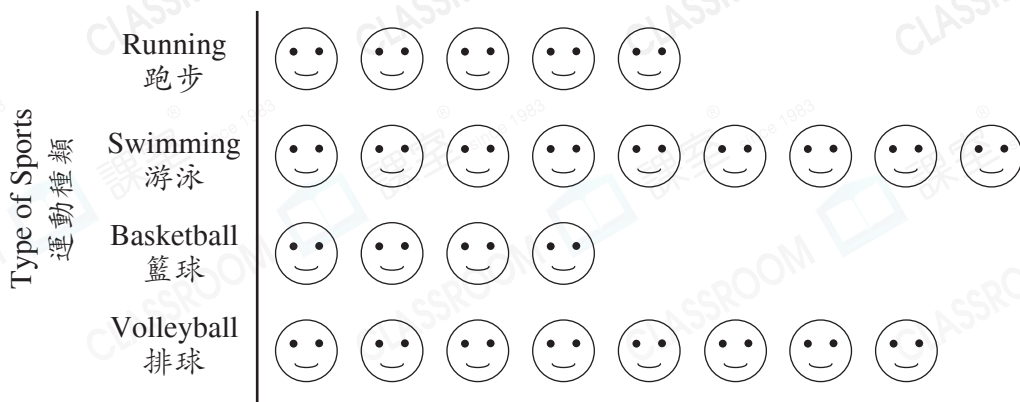
28. 上圖由三個正方形和一個梯形組成，陰影部分的面積是多少？

- A. 5cm^2
- B. 10cm^2
- C. 17cm^2
- D. 35cm^2

Favourite Sports of Class 5C Students

5C班學生最喜愛的運動

Each  stands for 1 student
每個  代表1人



29. What fraction of the number of students who like running the most is that of students who like basketball the most?

- A. $\frac{2}{13}$
- B. $\frac{1}{2}$
- C. $\frac{5}{9}$
- D. $\frac{4}{5}$

29. 最喜愛籃球的學生是最喜愛跑步的幾分之幾？

- A. $\frac{2}{13}$
- B. $\frac{1}{2}$
- C. $\frac{5}{9}$
- D. $\frac{4}{5}$

30. In a bar chart 'Sales of Book A, B and C', the bar of 'B' is the shortest. If the sales of 'B' are 65 books, which of the following **cannot** be the sales of 'A'?

- A. 100
- B. 72
- C. 66
- D. 53

30. 在棒形圖「圖書A、B和C的銷量」中，代表「B」的棒最短。如果「B」售出65本，以下哪一個**不可能**是「A」的銷量？

- A. 100
- B. 72
- C. 66
- D. 53

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。

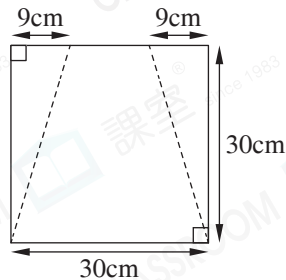


Figure 1

圖一

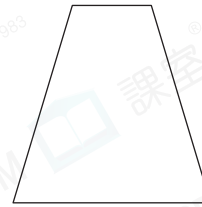


Figure 2

圖二

31. After Henry cuts along the dotted lines in Figure 1 to remove 2 triangles, a trapezium is obtained as shown in Figure 2.

(a) What is the area of the trapezium?
(Give the answer only)

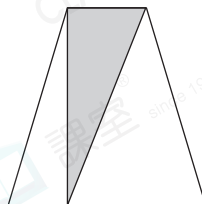
[2 marks]

(b) Henry used the trapezium of Figure 2 to design two signboards as shown below. He believes that the areas of the shaded parts in the two designs are the same. Do you agree? Explain. [4 marks]

31. 海仁沿着圖一的虛線切去兩個三角形後，得到圖二所示的梯形。

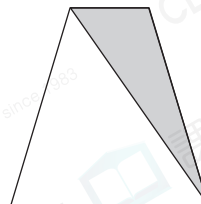
(a) 梯形的面積是多少？(只須寫出答案) [2分]

(b) 下圖顯示海仁利用圖二梯形所設計的兩個招牌。他認為兩個設計的陰影部分的面積一樣。你同意嗎？試解釋。 [4分]



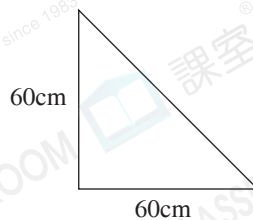
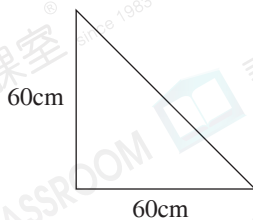
Design 1

設計一



Design 2

設計二



32. The above figure shows a square and two isosceles right-angled triangles of the same size.

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

(b) What kinds of quadrilaterals can be formed by the above 3 shapes?
(Give the answer only) [3 marks]

32. 上圖是一個正方形和兩個大小相同的等腰直角三角形。

(a) 每個三角形的面積是多少？
(只須寫出答案) [2分]

(b) 以上三個圖形可拼砌出哪些四邊形？(只須寫出答案)
[3分]

33. Amy bought $1\frac{1}{4}$ kg of apples, $1\frac{2}{5}$ kg of pears and $1\frac{3}{10}$ kg of oranges.

(a) Which fruit did Amy buy the heaviest? (Circle the answer on the answer sheet) [2 marks]

(b) How many kilograms of fruit did Amy buy in total? [4 marks]

(c) Amy used $\frac{3}{5}$ kg of pears to make juice. Oranges she used were $\frac{3}{10}$ kg less than pears. How much fruit did Amy use in total?
[4 marks]

33. 雪兒購買了 $1\frac{1}{4}$ kg 蘋果， $1\frac{2}{5}$ kg 梨和 $1\frac{3}{10}$ kg 橙。

(a) 雪兒購買的哪種水果最重？
(在答題紙上圈出答案) [2分]

(b) 雪兒共購買了水果多少？
[4分]

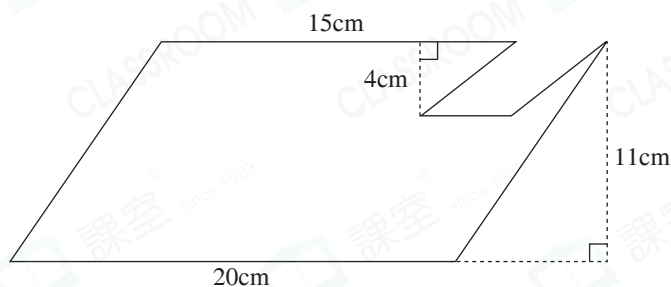
(c) 雪兒用了 $\frac{3}{5}$ kg 梨榨果汁，用了的橙比梨少 $\frac{3}{10}$ kg。雪兒共用了水果多少？
[4分]

34. (a) Mr Wong decided to pick blueberries for 40 hours a week. He picked blueberries for $5\frac{1}{6}$ hours and $7\frac{3}{4}$ hours in the first day and the second day respectively. In the remaining days, how many hours did he need to pick blueberries at least? [4 marks]

(b) Mr Cheung picked 400kg of blueberries and 360kg of blueberries last week and this week respectively. He got \$150 for every 25kg of blueberries he picked. In these two weeks, how much did he get by picking blueberries in total? [4 marks]

34. (a) 王先生決定一星期採摘藍莓40小時。他在第一天和第二天分別採摘藍莓 $5\frac{1}{6}$ 小時和 $7\frac{3}{4}$ 小時。在餘下的日子，他最少須採摘藍莓多少小時？ [4分]

(b) 張先生上個星期和這個星期分別採摘藍莓400kg和360kg，他每採摘25kg藍莓獲得工資\$150。在這兩個星期，他採摘藍莓共獲得工資多少？ [4分]

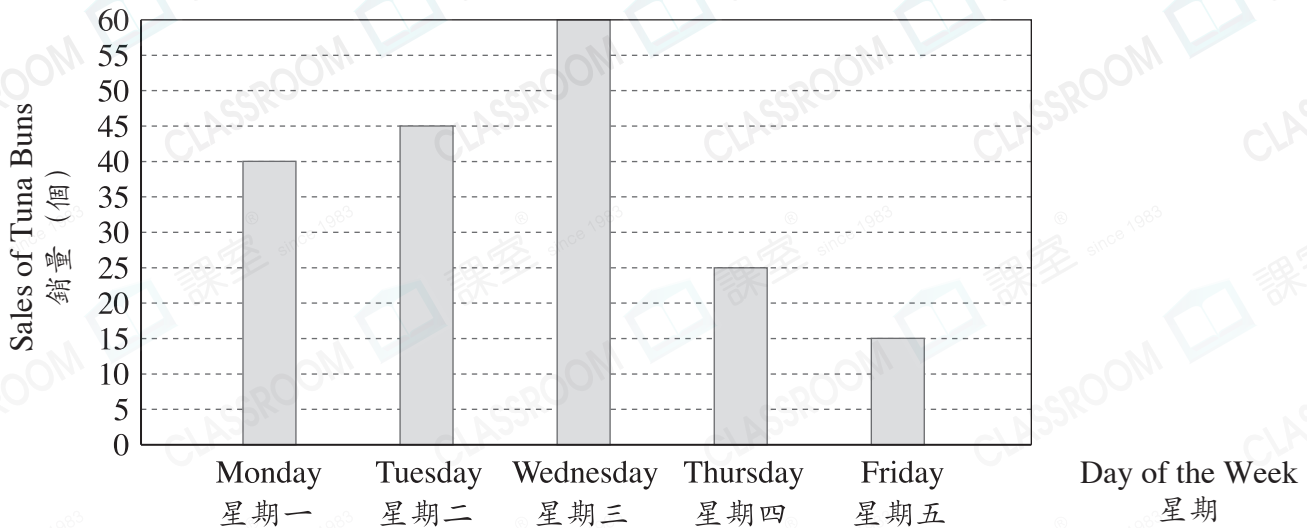


35. Eason cuts out a smaller parallelogram from a larger parallelogram, as shown above. What is the area of the remaining figure? [4 marks]

35. 雲毅從一個大平行四邊形中剪去一個小平行四邊形，如上圖所示。餘下圖形的面積是多少？ [4分]

Sales of Tuna Buns in Tasty Bakery from Monday to Friday

妙味麵包店星期一至星期五吞拿魚包的銷量



36. (a) Comparing the sales of tuna buns by day, what was the difference between the greatest and the smallest sales of tuna buns? (Give the answer only) [1 mark]

- (b) The sales amount of tuna buns was \$405 on Tuesday. How much was the sales amount of tuna buns on Thursday? [4 marks]

- (c) Tasty Bakery also sells sausage buns. A sausage bun costs \$16. Amy paid a \$100 note to buy 4 sausage buns. What was the change? (Give the answer only) [2 marks]

36. (a) 比較銷量最高和最低的一天，吞拿魚包的銷量相差多少個？(只須寫出答案) [1分]

- (b) 星期二吞拿魚包的銷售額是 \$405，那麼星期四吞拿魚包的銷售額是多少？ [4分]

- (c) 妙味麵包店亦有售賣腸仔包。每個腸仔包售 \$16，惠文付一張 \$100 紙幣買 4 個腸仔包，應找回多少？(只須寫出答案) [2分]