

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 31-37
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 37 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。

長河中一入學前數學科分類練習+模擬試卷(小六)

LONG RIVER  長河

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 added to 998 623 to make it a 7-digit number?

- A. 1377
- B. 1387
- C. 1397
- D. 1407

1. 998 623 最少要加上多少才是一個七位數？

- A. 1377
- B. 1387
- C. 1397
- D. 1407

2. What is the value of '7' in the number 37.5%?

- A. 0.07
- B. 0.7
- C. 7
- D. 70

2. 在 37.5% 這個數中，「7」的數值是多少？

- A. 0.07
- B. 0.7
- C. 7
- D. 70

3. What is the result of adding up all the factors of 46?

- A. 25
- B. 26
- C. 71
- D. 72

3. 把 46 的所有因數相加的結果是多少？

- A. 25
- B. 26
- C. 71
- D. 72

4. If $R \times P = 144$, which of the following is not correct?
- A. 144 must be a common multiple of R and P .
 - B. 144 is a multiple of P .
 - C. R is a factor of 144.
 - D. 144 must be the L.C.M. of R and P .

4. 如果 $R \times P = 144$ ，下列哪一項是不正確的？
- A. 144一定是 R 和 P 的公倍數。
 - B. 144是 P 的倍數。
 - C. R 是144的因數。
 - D. 144一定是 R 和 P 的L.C.M.。

5. Ray had a box of apples. He packed these apples into bags of 6 each. After packing, there were 26 bags and 4 apples left. If he repacked them into bags of 8 each, how many apples would be left?

- A. 0
- B. 1
- C. 2
- D. 3

5. 啟宏有一箱蘋果，他把這些蘋果每6個裝成一袋，共裝成26袋，還餘下4個。如果他改為每8個裝成一袋，把這箱蘋果重新包裝後，餘下多少個？

- A. 0
- B. 1
- C. 2
- D. 3

6. Which of the following numbers has the largest value?

- A. 42.5%
- B. $\frac{5}{6}$
- C. $\frac{3}{4}$
- D. 87%

6. 下列哪一個數的值是最大的？

- A. 42.5%
- B. $\frac{5}{6}$
- C. $\frac{3}{4}$
- D. 87%

7. There was a carton of milk. Brother drank $\frac{2}{5}$ of it and sister drank $\frac{1}{2}$ of it. How much milk was left?

- A. $\frac{7}{10}$
- B. $\frac{3}{5}$
- C. $\frac{1}{2}$
- D. $\frac{1}{10}$

7. 一盒牛奶，哥哥喝了整盒的 $\frac{2}{5}$ ，妹妹喝了整盒的 $\frac{1}{2}$ ，還餘下牛奶多少？

- A. $\frac{7}{10}$
- B. $\frac{3}{5}$
- C. $\frac{1}{2}$
- D. $\frac{1}{10}$

8. 6.2L of herbal tea is poured into glasses of capacity of 350mL each. How many glasses can be filled at most?

- A. 2
- B. 3
- C. 17
- D. 18

8. 現有涼茶 6.2L，最多可注滿多少個容量是 350mL 的杯子？

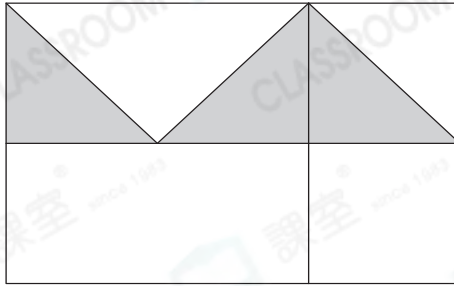
- A. 2
- B. 3
- C. 17
- D. 18

9. The price of a carton of milk is \$18. A reduction of \$42 is given to the purchase of a box of 12 cartons of milk. By how much is a carton of milk cheaper on average?

- A. \$1.5
- B. \$3.5
- C. \$14.5
- D. \$24

9. 每盒牛奶的售價是\$18。現購買一箱共12盒的牛奶，可獲減價\$42，平均每盒牛奶便宜了多少？

- A. \$1.5
- B. \$3.5
- C. \$14.5
- D. \$24



10. In the above figure, what percentage of the figure is shaded?

- A. 50%
- B. 37.5%
- C. 35%
- D. 25%

10. 上圖中，陰影部分佔全圖的百分之幾？

- A. 50%
- B. 37.5%
- C. 35%
- D. 25%

11. The first multiple of X is X . How many times of X is the sum of the first, the third and the fifth multiples of X ?

- A. 2
- B. 4
- C. 6
- D. 9

11. X 的第一個倍數是 X 。那麼 X 的第一、第三和第五個倍數之和是 X 的多少倍？

- A. 2
- B. 4
- C. 6
- D. 9

12. Which of the following has the largest value?

- A. 219×0.34
- B. 305×0.17
- C. 21.9×34
- D. 30.5×17

12. 下列哪一項的值最大？

- A. 219×0.34
- B. 305×0.17
- C. 21.9×34
- D. 30.5×17

13. Queenie weighs 32.4kg. Henry is 1.6kg heavier than Queenie. What is the total weight of them?

- A. 63.4kg
- B. 63.6kg
- C. 66.4kg
- D. 66.6kg

13. 敏晴的體重是32.4kg，志鴻比敏晴重1.6kg。他們共重多少？

- A. 63.4kg
- B. 63.6kg
- C. 66.4kg
- D. 66.6kg

Tasty Bakery
滋味坊

	Per piece 每塊
Blueberry Cookie 藍莓曲奇	\$5.50
Chocolate Cookie 巧克力曲奇	\$7.50
Nut Cookie 果仁曲奇	\$8.40

14. Sherry had \$100. After buying 3 pieces of blueberry cookies and nut cookies each, how many pieces of chocolate cookies at most could she buy with the money left?

- A. 5
- B. 6
- C. 7
- D. 8

14. 淑儀有\$100，她買了藍莓曲奇和果仁曲奇各3塊後，餘款最多可以買巧克力曲奇多少塊？

- A. 5
- B. 6
- C. 7
- D. 8

15. There are altogether 950 boys and girls in a school. When every 12 boys form a group, there are 32 groups with 6 boys left. If every 15 girls form a group, how many groups will there be at most? How many girls are left?

- A. 37 groups with 0 girl left
- B. 37 groups with 5 girls left
- C. 38 groups with 0 girl left
- D. 38 groups with 5 girls left

15. 某學校有男、女學生共950人。男生每12人一組，可分為32組，餘下6人。如果女生每15人分為一組，最多可分為多少組？餘下女生多少人？

- A. 37組，餘下女生0人
- B. 37組，餘下女生5人
- C. 38組，餘下女生0人
- D. 38組，餘下女生5人

16. Which of the following figures cannot be formed by fitting eight equilateral triangles of the same size together?

- A. equilateral triangle
- B. parallelogram
- C. trapezium
- D. rhombus

16. 把八個大小相同的等邊三角形拼合，不可以拼出以下哪種圖形？

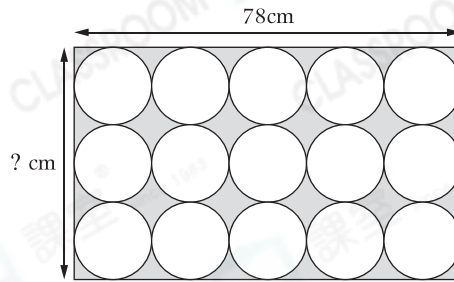
- A. 等邊三角形
- B. 平行四邊形
- C. 梯形
- D. 菱形

17. Which of the following is the common property of rectangles, parallelograms and rhombuses?

- A. four angles are equal
- B. four sides are equal
- C. opposite sides are equal
- D. there are at least two acute angles

17. 長方形、平行四邊形和菱形有以下哪一種共同特性？

- A. 四角相等
- B. 四邊長度相等
- C. 對邊長度相等
- D. 至少有兩個銳角

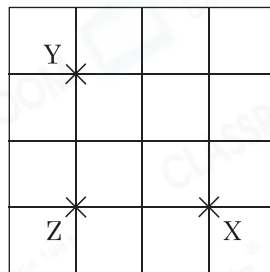


18. A rectangular box can hold 15 circular dishes of the same size, as shown above. This box is 78cm long. What is the width of the box?

- A. 5.2cm
- B. 15.6cm
- C. 26cm
- D. 46.8cm

18. 一個長方形箱子可容納15個大小相同的圓形盤子，如上圖所示。這箱子長78cm，它的闊是多少？

- A. 5.2cm
- B. 15.6cm
- C. 26cm
- D. 46.8cm

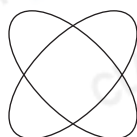


19. In the above figure, Ben went west from X to Y. When he arrived at Y, in which direction was he from Z?

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

19. 上圖中，均華由X向西出發往Y，到達Y時，他在Z的哪一個方向？

- A. 西北
- B. 西南
- C. 東北
- D. 東南



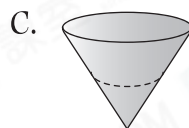
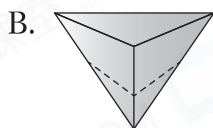
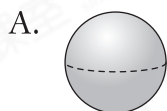
20. How many lines of symmetry are there in the above figure?

- A. 1
- B. 2
- C. 3
- D. 4

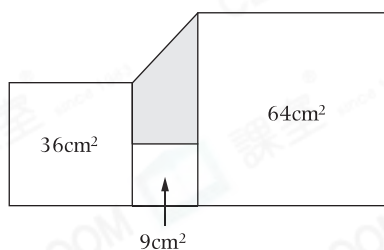
20. 上圖共有多少條對稱軸？

- A. 1
- B. 2
- C. 3
- D. 4

21. When cut the following solids along the dotted lines horizontally, which cut section obtained is not a circle?



21. 以下哪一個立體沿虛線水平切開，所得的截面不是圓形？



22. The above figure is formed by a trapezium and three squares. What is the area of the shaded part?

- A. 36cm^2
- B. 24cm^2
- C. 21cm^2
- D. 12cm^2

22. 上圖是由一個梯形和三個正方形拼合而成。陰影部分的面積是多少？

- A. 36cm^2
- B. 24cm^2
- C. 21cm^2
- D. 12cm^2

23. The capacity of a tank was 5000mL. $\frac{3}{5}$ of it was filled with water. After two glass balls with the same volume were immersed in the water, 400mL of water overflowed. What is the volume of each glass ball?

- A. 1000cm³
- B. 1200cm³
- C. 1500cm³
- D. 1800cm³

23. 水缸的容量是5000mL，盛載了 $\frac{3}{5}$ 缸水。把兩個體積相同的玻璃球完全沉入水中，溢出水400mL，一個玻璃球的體積是多少？

- A. 1000cm³
- B. 1200cm³
- C. 1500cm³
- D. 1800cm³

24. A rope of length 80cm is used to form a rectangle. If the length is 4 times of the width, what is the area of this rectangle?

- A. 400cm²
- B. 256cm²
- C. 100cm²
- D. 64cm²

24. 用一條長80cm的繩子圍出一個長方形。如果長是闊的4倍，這個長方形的面積是多少？

- A. 400cm²
- B. 256cm²
- C. 100cm²
- D. 64cm²

25. A cuboid of 6cm long, 4cm wide and 8cm high is cut into cubes with side 2cm each. How many cubes can be cut out at most?

- A. 96
- B. 48
- C. 24
- D. 12

25. 把長6cm、闊4cm和高8cm的長方體切成邊長2cm的正方體，最多可切出正方體多少個？

- A. 96
- B. 48
- C. 24
- D. 12

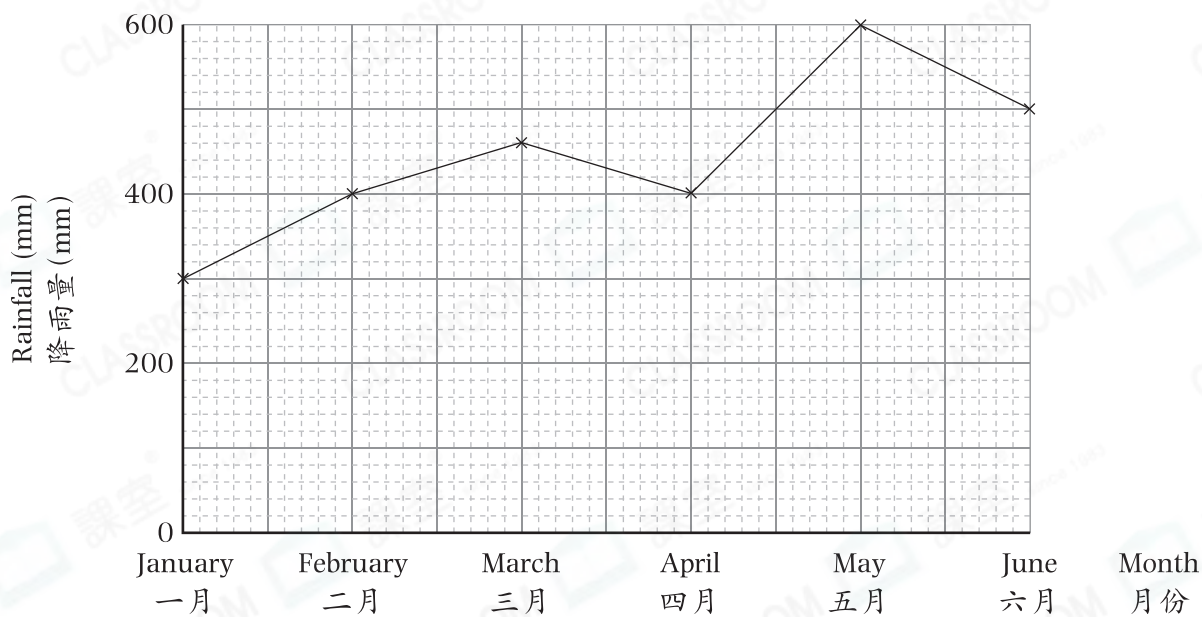
26. There is a cuboid of 14cm long, 9cm wide and 6cm high. To get the largest cube, how much should be cut off from the cuboid?

- A. 36cm^3
- B. 216cm^3
- C. 540cm^3
- D. 720cm^3

26. 一個長方體長14cm，闊9cm，高6cm。要把立體切去多少才可得到一個最大的正方體？

- A. 36cm^3
- B. 216cm^3
- C. 540cm^3
- D. 720cm^3

Rainfall of a City in the First Half Year
某城市上半年的降雨量



27. According to the above graph, which two consecutive months have the greatest difference in rainfall?

- A. January and February
- B. February and March
- C. April and May
- D. May and June

27. 根據上圖，哪兩個連續月份的降雨量相差最多？

- A. 一月和二月
- B. 二月和三月
- C. 四月和五月
- D. 五月和六月

28. The average height of 3 girls is 1.45m and the average height of 6 boys is 1.51m. What is the average height of these children?

- A. 1.49m
- B. 1.48m
- C. 1.45m
- D. 1.06m

28. 3名女孩的平均身高是1.45m，6名男孩的平均身高是1.51m。這些小孩的平均身高是多少？

- A. 1.49m
- B. 1.48m
- C. 1.45m
- D. 1.06m

29. Tom has $\$(3P + 12)$. He uses $\$2$ everyday. How much are left after 6 days?

- A. $\$(3P + 6)$
- B. $\$3P$
- C. $\$(3P + 3)$
- D. $\$(3P + 18)$

29. 志文有 $\$(3P + 12)$ ，他每天用去 $\$2$ ，6天後還餘下款項多少？

- A. $\$(3P + 6)$
- B. $\$3P$
- C. $\$(3P + 3)$
- D. $\$(3P + 18)$

30. Study the following expression:

$$\begin{array}{r} \begin{array}{|c|} \hline 3 \\ \hline \end{array} \begin{array}{|c|} \hline X \\ \hline \end{array} \\ + \begin{array}{|c|} \hline Y \\ \hline \end{array} \begin{array}{|c|} \hline 7 \\ \hline \end{array} \\ \hline \begin{array}{|c|} \hline 6 \\ \hline \end{array} \begin{array}{|c|} \hline 5 \\ \hline \end{array} \end{array}$$

Find the result of $\frac{X}{Y}$.

- A. 16
- B. 10
- C. 8
- D. 4

30. 觀察以下的算式：

找出 $\frac{X}{Y}$ 的結果。

- A. 16
- B. 10
- C. 8
- D. 4

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。

Brand 牌子	X	Y	Z
Weight (Each Pack) 重量(每包)	$\frac{33}{4}$ kg	8.5kg	$8\frac{4}{5}$ kg

31. The above shows the weight of three brands of clay.

(a) 5 employees used 4 packs of Brand Y clay. How many kilograms of clay did each person use on average?
[4 marks]

(b) According to the above table, which brand of clay has the smallest weight? (Give the answer only) [2 marks]

31. 以上是三款牌子黏土的重量。

(a) 5名店員用了4包牌子Y的黏土。平均每人用去黏土多少?
[4分]

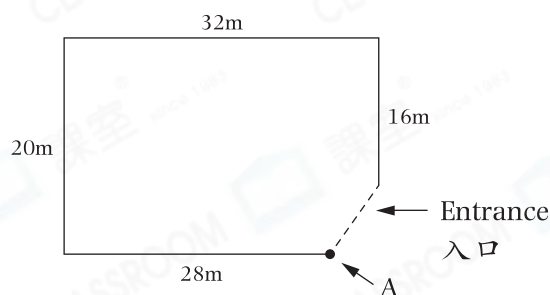
(b) 根據上表，哪個牌子的黏土最輕？(只須寫出答案) [2分]

Charge Table
價目表

Card box (per box) 卡片盒(每個)	\$18.50
Christmas card (per card) 聖誕卡(每張)	\$1.50

32. Catherine and her two elder sisters each bought a card box and 24 Christmas cards. According to the above table, how much should they pay altogether? [4 marks]

32. 倩雲和兩位姊姊各購買一個卡片盒和24張聖誕卡。根據上表，她們共須付款多少？ [4分]



33. The above shows the plan of the Blue Sky car park.

33. 以上是藍天停車場的平面圖。

(a) What is the area of the car park? [4 marks]

(a) 停車場的面積是多少？ [4分]

(b) Alarms were set up around the car park except the Entrance from point A every 4m, how many alarms were set up? (Give the answer only) [2 marks]

(b) 除入口外，停車場的周圍從A點開始每隔4m安裝一個警報器，共安裝了警報器多少個？ (只須寫出答案) [2分]

- 34.** A full bottle of water is poured into a cubic container of side 10cm and fills the container to half full.
- (a) What is the capacity of the bottle?
[4 marks]
- (b) What is the least number of blocks of volume 50cm^3 to be added to make the water overflow from the container? (Give the answer only) [2 marks]

- 34.** 把一滿瓶水倒進一個邊長10cm的正方體容器，剛好盛滿了容器的一半。
- (a) 水瓶的容量是多少？ [4分]
- (b) 若要令水溢出容器，最少要放入體積為 50cm^3 的積木多少塊？(只須寫出答案) [2分]

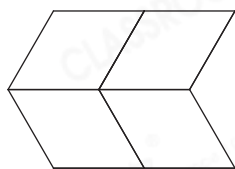


Figure 1
圖一

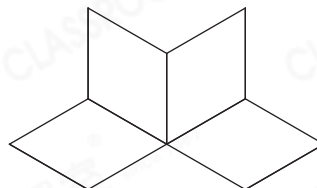


Figure 2
圖二

- 35.** Jennie used 8 rhombi of the same size to form the shapes in Figure 1 and Figure 2.
- (a) On the answer sheet, draw all the axes of symmetry of Figure 1.
[2 marks]
- (b) If the perimeter of Figure 2 is 40cm longer than that of Figure 1, what is the perimeter of Figure 2?
[4 marks]

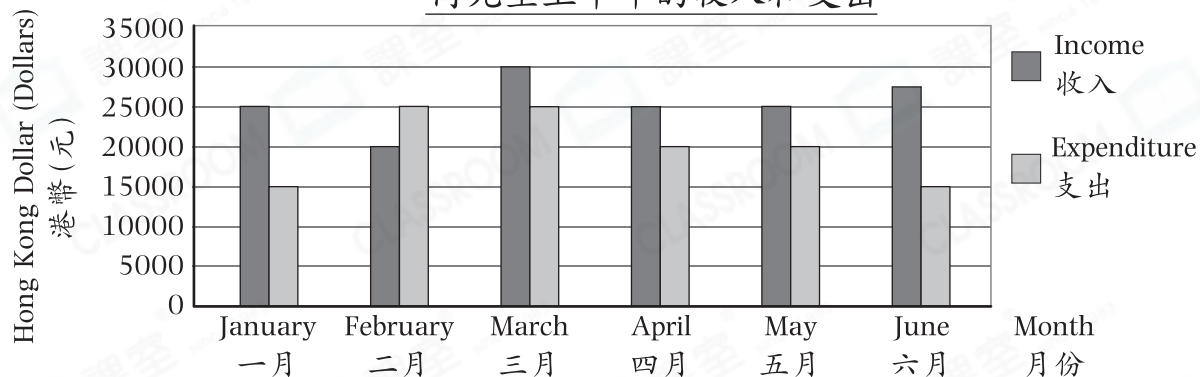
- 35.** 佩欣用8個大小相同的菱形，組成圖一及圖二的形狀。
- (a) 在答題紙上，畫出圖一的所有對稱軸。
[2分]
- (b) 如果圖二的周界比圖一的長40cm，圖二的周界是多少？
[4分]

36. The graph below shows the income and expenditure of Mr Ho in the first half year. When his income is greater than his expenditure in a certain month, he saves up the remaining. When his income is less than his expenditure in a certain month, he uses the saving for the expenditure.

36. 下圖顯示了何先生上半年的收入和支出。當某月的收入多於支出時，他會把剩餘的收入儲蓄起來。當某月的收入少於支出時，他會使用儲蓄來應付支出。

The Income and Expenditure of Mr Ho in the First Half Year

何先生上半年的收入和支出



(a) What was the average monthly expenditure of Mr Ho in the first half year? [4 marks]

(a) 何先生上半年平均每月的支出是多少？ [4分]

(b) From January to March, do you think Mr Ho had enough money to pay for his expenditure? Explain. [4 marks]

(b) 由一月至三月，何先生是否有足夠的款項以應付支出？試解釋。 [4分]

37. A notebook costs \$Y. A ruler costs \$16. The price of the ruler is \$1 more than half of that of the notebook. How much does a notebook cost? (Use equation to solve the problem and show your working) [4 marks]

37. 一本筆記簿售 \$Y，一把直尺售 \$16，直尺的售價比筆記簿的一半多 \$1。筆記簿的售價是多少？(須用方程列式計算) [4分]

HONG KONG ATTAINMENT TEST

香港學科測驗

Pre-Secondary One Mathematics Mock Paper 1

中一入學前數學科模擬試卷(一)

Answer Sheet

答題紙

Name of Student

學生姓名：_____ (中文)

Class

班別：_____ ()

Section A (60 marks) You only need to write down the letter preceding the selected answer. (2 marks each)

甲部(60分)

學生只須填上所選答案前的英文字母。(每題2分)

1.		11.		21.	
2.		12.		22.	
3.		13.		23.	
4.		14.		24.	
5.		15.		25.	
6.		16.		26.	
7.		17.		27.	
8.		18.		28.	
9.		19.		29.	
10.		20.		30.	

For Teacher's Use
供教師用

		Number 數	Shape & Space 圖形與空間	Measures 度量	Data Handling 數據處理	Algebra 代數
Section A 甲部	Item 題目	1-15	16-21	22-26	27-28	29-30
	Marks 分數					
Section B 乙部	31(a)					
	31(b)					
	32					
	33(a)					
	33(b)					
	34(a)					
	34(b)					
	35(a)					
	35(b)					
	36(a)					
36(b)						
37						
(Sections A + B) Total (甲部及乙部) 合計						
Grand Total 總計						

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。

		Marks 佔分	Marks 得分
31(a)		4	<input type="text"/>
31(b)	Brand _____ clay has the smallest weight. 牌子_____的黏土最輕。	2	<input type="text"/>
32		4	<input type="text"/>
33(a)		4	<input type="text"/>

Go On To Next Page
轉下頁續答

Marks
估分

Marks
得分

33(b)

alarms were set up.

共安裝了_____個警報器。

2

34(a)

4

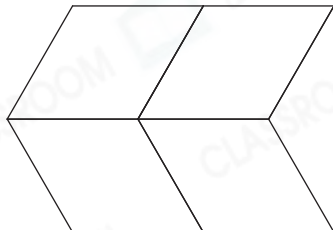
34(b)

blocks must be added at least.

最少要放入_____塊積木。

2

35(a)



2

35(b)

4

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轉下頁續答

Marks
佔分

Marks
得分

36(a)

4

36(b)

Because

因為

* enough / not enough (*circle the answer)

* 足夠 / 不足夠 (*圈出答案)

4

37

4

END
完