

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。

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. In the number 21043, how many times of the value of '4' is that of '1'?

- A. 0.25
- B. 4
- C. 25
- D. 50

1. 在21043這個數中，「1」的數值是「4」的多少倍？

- A. 0.25
- B. 4
- C. 25
- D. 50

2. Which of the following are the H.C.F. and the L.C.M. of 18 and 24?

- | | <u>H.C.F.</u> | <u>L.C.M.</u> |
|----|---------------|---------------|
| A. | 3 | 72 |
| B. | 6 | 72 |
| C. | 72 | 3 |
| D. | 72 | 6 |

2. 以下哪一組是18和24的H.C.F.和L.C.M.？

- | | <u>H.C.F.</u> | <u>L.C.M.</u> |
|----|---------------|---------------|
| A. | 3 | 72 |
| B. | 6 | 72 |
| C. | 72 | 3 |
| D. | 72 | 6 |

3. If $20\% < \frac{E}{15} < 40\%$, which of the following is a possible value of E ?

- A. 2
- B. 4
- C. 7
- D. 8

3. 若 $20\% < \frac{E}{15} < 40\%$ ，下列哪一個數可能是 E 的值？

- A. 2
- B. 4
- C. 7
- D. 8

4. The first six multiples of X are:
 X , 36, 54, 72, 90, 108
Which of the following is not a
factor of X ?

- A. 1
- B. 4
- C. 6
- D. 9

4. X 的首六個倍數是：
 X 、36、54、72、90、108
下列哪一個數不是 X 的因數？

- A. 1
- B. 4
- C. 6
- D. 9

5. Among a number of pens, 45%
of them are blue, $\frac{1}{8}$ are red and
the remaining are black. What
percentage of the pens is black?

- A. 32.5%
- B. 42.5%
- C. 55%
- D. 57.5%

5. 一堆筆中，藍色筆佔45%，紅色
筆佔 $\frac{1}{8}$ ，其餘的是黑色筆。黑色
筆佔全部筆的百分之幾？

- A. 32.5%
- B. 42.5%
- C. 55%
- D. 57.5%

6. The total distance of a hiking trail
is $6\frac{3}{4}$ km. Cindy walked $2\frac{1}{2}$ km.
How much more should Cindy walk
in order to reduce the remaining
distance to half of the total distance?

- A. $\frac{7}{8}$ km
- B. $1\frac{1}{8}$ km
- C. $3\frac{3}{8}$ km
- D. $4\frac{5}{8}$ km

6. 行山徑全程長 $6\frac{3}{4}$ km，思雯走了
 $2\frac{1}{2}$ km。她要再走多少，才能使
剩餘路程減至全程的一半？

- A. $\frac{7}{8}$ km
- B. $1\frac{1}{8}$ km
- C. $3\frac{3}{8}$ km
- D. $4\frac{5}{8}$ km

7. 0.85m ribbon is used to make one ribbon flower. What is the length of the ribbon used to make two dozens of ribbon flowers?

- A. 1.7m
- B. 8.5m
- C. 10.2m
- D. 20.4m

7. 做一朵絲帶花須用0.85m絲帶。做兩打絲帶花須用絲帶多少？

- A. 1.7m
- B. 8.5m
- C. 10.2m
- D. 20.4m

8. Ronald's weight was 36kg last year. His weight has increased by $\frac{1}{9}$ this year. What is Ronald's weight this year?

- A. 4kg
- B. 32kg
- C. $36\frac{1}{9}$ kg
- D. 40kg

8. 漢忠去年的體重是36kg，今年增加了 $\frac{1}{9}$ 。他今年的體重是多少？

- A. 4kg
- B. 32kg
- C. $36\frac{1}{9}$ kg
- D. 40kg

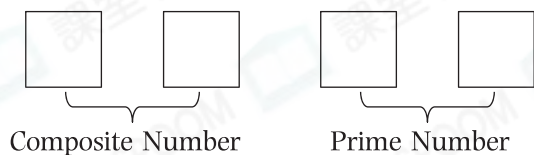
9. There is a bottle of honey. The weight of honey with bottle is 0.55kg. When half of the honey in the bottle is used, the weight of the remaining honey with bottle is 0.4kg. What is the original weight of the honey in the bottle?

- A. 0.475kg
- B. 0.3kg
- C. 0.15kg
- D. 0.075kg

9. 一瓶蜂蜜連瓶子重0.55kg，用去半瓶後，剩下的蜂蜜連瓶子重0.4kg，瓶子內原有蜂蜜多少？

- A. 0.475kg
- B. 0.3kg
- C. 0.15kg
- D. 0.075kg

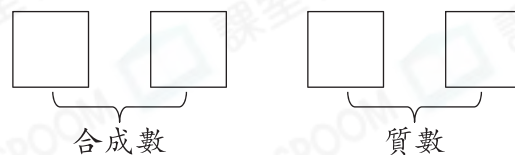
10. A 4-digit code is composed of a 2-digit composite number and a 2-digit prime number as shown below.



Which of the following can be the possible code?

- A. 5721
- B. 4319
- C. 3151
- D. 2743

10. 一個四位數密碼，是由一個兩位數的合成數和一個兩位數的質數合併而成，如下圖所示。



以下哪一個可能是這個密碼？

- A. 5721
- B. 4319
- C. 3151
- D. 2743

Price List of Juice
果汁售價表

Cup / 杯裝	Volume (mL) / 份量(毫升)	Price / 售價
Small / 小	350	\$17.5
Medium / 中	500	\$23
Large / 大	700	\$26.8

11. According to the above table, how much juice can Joe buy for \$268 at most?

- A. 8000mL
- B. 7000mL
- C. 5500mL
- D. 5250mL

11. 根據上表，瑾兒用 \$268 最多可以買果汁多少？

- A. 8000mL
- B. 7000mL
- C. 5500mL
- D. 5250mL

12. $1\star 8$ is a 3-digit number. When it is divided by 15, the remainder is 3. What number can \star be?

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

12. $1\star 8$ 是一個三位數。當它除以 15，餘數是 3。 \star 可能是什麼數字？

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

13. There are 150 students in Primary 6. 48% of them are boys. If 50% of girls join the interest classes, how many girls join the interest classes?

- A. 36
- B. 39
- C. 75
- D. 78

13. 六年級有 150 名學生，男生佔 48%。如果參加興趣班的女生佔全部女生的 50%，參加興趣班的女生有多少名？

- A. 36
- B. 39
- C. 75
- D. 78

14. A group of 6 people rented an activity room together and each paid \$72. Later the staff found that he had made a mistake in the bill and refunded \$48 to the group. How much did each person actually pay?

- A. \$36
- B. \$54
- C. \$64
- D. \$80

14. 6 人一起租用活動室，每人付了 \$72。後來職員發覺賬單出錯了，退還 \$48 給他們。每人實際應付款多少？

- A. \$36
- B. \$54
- C. \$64
- D. \$80

15. Which of the following shapes has only one pair of parallel lines?

- A. square
- B. rectangle
- C. trapezium
- D. rhombus

15. 下列哪一個平面圖形只有一組平行線？

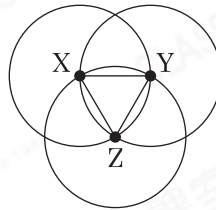
- A. 正方形
- B. 長方形
- C. 梯形
- D. 菱形

16. The lengths of two sides of an isosceles triangle are 6cm and 14cm. What is the length of the third side?

- A. 6cm
- B. 8cm
- C. 12cm
- D. 14cm

16. 一個等腰三角形的其中兩邊分別長6cm和14cm，它的第三邊長多少？

- A. 6cm
- B. 8cm
- C. 12cm
- D. 14cm

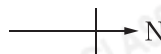
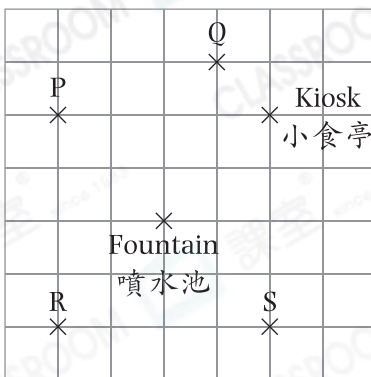


17. In the above figure, X, Y and Z are the centres of 3 circles of the same size. XYZ is an equilateral triangle. Its perimeter is 12cm. What is the diameter of a circle?

- A. 2cm
- B. 4cm
- C. 8cm
- D. 12cm

17. 上圖中，X、Y和Z是3個大小相同的圓的圓心，而XYZ是一個等邊三角形，它的周界是12cm。那麼一個圓的直徑是多少？

- A. 2cm
- B. 4cm
- C. 8cm
- D. 12cm

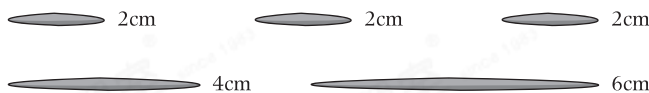


18. Eva went to the park with friends. Their destination was the Fountain. On the way to the Fountain, they found that the Kiosk was northeast from them. What was their location at that time on the map?

- A. P
- B. Q
- C. R
- D. S

18. 麗華和朋友一起去公園，目的地是噴水池。途中他們發現小食亭是在他們的東北方。他們當時是在地圖中的哪一個位置？

- A. P
- B. Q
- C. R
- D. S



19. If all of the above five sticks are used together to form a quadrilateral, which of the following quadrilaterals cannot be formed?

- A. square
- B. rectangle
- C. parallelogram
- D. trapezium

19. 如果同時使用以上5枝竹籤拼砌一個四邊形，不可以拼出以下哪個四邊形？

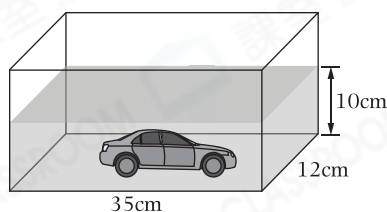
- A. 正方形
- B. 長方形
- C. 平行四邊形
- D. 梯形

20. Mr Lee drove 162km in 2 hours and 15 minutes. What was his average driving speed?

- A. 81km/h
- B. 75km/h
- C. 72km/h
- D. 52km/h

20. 李先生駕車2小時15分鐘，共行駛了162km，他駕車的平均速率是多少？

- A. 81km/h
- B. 75km/h
- C. 72km/h
- D. 52km/h



21. After Mary took out the toy car from the tank shown in the above figure, the water level dropped by 1cm. What was the volume of the toy car?

- A. 350cm^3
- B. 420cm^3
- C. 3780cm^3
- D. 4200cm^3

21. 玫瑰從上圖的容器內取出玩具車後，水位下降了1cm。這玩具車的體積是多少？

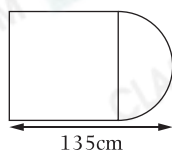
- A. 350cm^3
- B. 420cm^3
- C. 3780cm^3
- D. 4200cm^3

22. From a square of side 18cm, a triangle is cut out. What is the largest possible area of the triangle?

- A. 54cm^2
- B. 72cm^2
- C. 162cm^2
- D. 324cm^2

22. 從一個邊長是18cm的正方形中剪出一個三角形，該三角形的面積最大是多少？

- A. 54cm^2
- B. 72cm^2
- C. 162cm^2
- D. 324cm^2



23. The above figure is formed by a square and a semi-circle. What is the perimeter of it? (Take π as 3.14)

- A. 141.3cm
- B. 282.6cm
- C. 411.3cm
- D. 552.6cm

23. 上圖由一個正方形和一個半圓組成，它的周界是多少？(取 π 為3.14)

- A. 141.3cm
- B. 282.6cm
- C. 411.3cm
- D. 552.6cm

24. If the total length of all the edges of a cube is 108cm, what is the volume of the cube?

- A. 81cm^3
- B. 729cm^3
- C. 5832cm^3
- D. 19683cm^3

24. 若一個正方體所有稜的總長度是108cm，則這個正方體的體積是多少？

- A. 81cm^3
- B. 729cm^3
- C. 5832cm^3
- D. 19683cm^3

25. Cars M and N left City A and went along a straight road towards south. Cars M and N set off at 11:30, at an average speed of 70km/h and 65km/h respectively. What was the distance between them at 14:00?

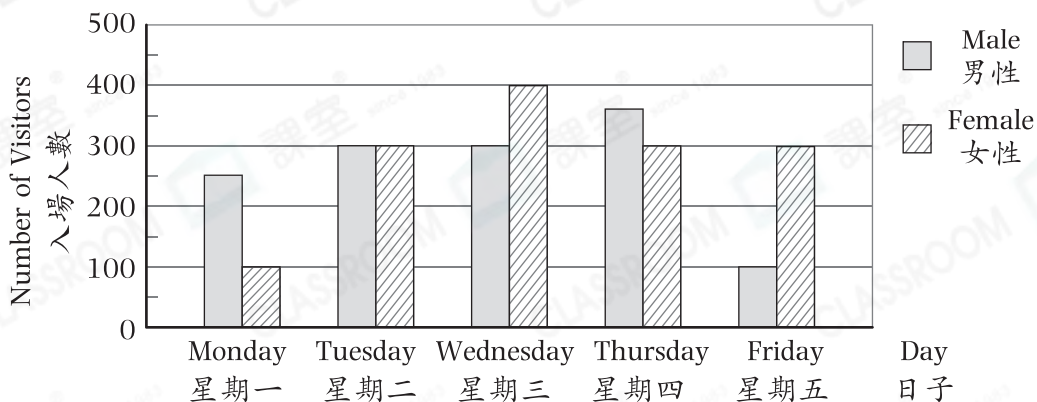
- A. 12.5km
- B. 17.5km
- C. 37.5km
- D. 337.5km

25. M、N兩車離開A城沿直路向南行駛。M、N車在11:30出發，它們的平均速率分別是70km/h和65km/h。在14:00時，兩車相距多少？

- A. 12.5km
- B. 17.5km
- C. 37.5km
- D. 337.5km

Number of Visitors to the Happy Farm in the Past Five Days

歡樂農場過去五天的入場人數



26. The above graph showed the number of visitors to the Happy Farm in the past five days. Which day has the total number of visitors exactly 2 times of that in Monday?

- A. Tuesday
- B. Wednesday
- C. Thursday
- D. Friday

26. 上圖是歡樂農場過去五天的入場人數。哪一天的總入場人數剛好是星期一的2倍？

- A. 星期二
- B. 星期三
- C. 星期四
- D. 星期五

27. Which of the following groups of numbers has the largest average?

- A. 24, 38, 53, 72
- B. 13.3, 24.7, 33.8, 56.2
- C. 34, 68.5, 75.4
- D. 6.5, 82.6, 149.7

27. 下列哪一組數的平均值最大？

- A. 24、38、53、72
- B. 13.3、24.7、33.8、56.2
- C. 34、68.5、75.4
- D. 6.5、82.6、149.7

28. Cally wants to show the change in rainfall last week by graph. Which of the following is the most suitable graph that she should use?

- A. Pictogram
- B. Pie Chart
- C. Compound Bar Chart
- D. Broken Line Graph

28. 穎宜想用統計圖來表示上星期的降雨量的變化，她選用下列哪一種統計圖最適當？

- A. 象形圖
- B. 圓形圖
- C. 複合棒形圖
- D. 折線圖

29. A cake cost $\$x$. There was a reduction of $\$2$ for buying 4 cakes, $\$4$ for buying 8 cakes, $\$6$ for buying 12 cakes and so on. Mrs Lee bought 24 cakes. How much should she pay?

- A. $\$(12x - 6)$
- B. $\$(12x - 8)$
- C. $\$(24x - 8)$
- D. $\$(24x - 12)$

29. 西餅每件售 $\$x$ 。若購買 4 件可減 $\$2$ ，8 件可減 $\$4$ ，12 件則可減 $\$6$ ，如此類推。李太太買了 24 件西餅，她應付款多少？

- A. $\$(12x - 6)$
- B. $\$(12x - 8)$
- C. $\$(24x - 8)$
- D. $\$(24x - 12)$

30. If $11m - 3m = 6$, then $m + 1.5 = ?$

- A. 10
- B. 9
- C. 2.25
- D. 0.75

30. 如果 $11m - 3m = 6$ ，那麼 $m + 1.5 = ?$

- A. 10
- B. 9
- C. 2.25
- D. 0.75

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)

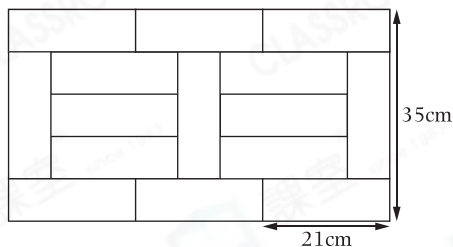
除特別指明外，在回答本部問題時，須列出計算步驟。

31. A fruit shop bought 360kg of fruits. $\frac{1}{9}$ of the fruits were grapes. $\frac{1}{3}$ of the fruits were oranges. Half of the remaining fruits were apples and the other half were mangoes.

- (a) What fraction of all fruits was grapes and oranges? (Give the answer only) [2 marks]
- (b) What was the weight of apples? [4 marks]

31. 某水果店購入了360kg水果，其中 $\frac{1}{9}$ 是葡萄， $\frac{1}{3}$ 是橙，餘下的水果，一半是蘋果，另一半是芒果。

- (a) 葡萄和橙共佔所有水果的幾分之幾？(只須寫出答案) [2分]
- (b) 蘋果的重量是多少？ [4分]



32. (a) The above figure is made from 15 rectangles of the same size and same shape. What is the perimeter of each rectangle? (Give the answer only) [2 marks]
- (b) What is the area of the above figure? (Give the answer only) [2 marks]

32. (a) 上圖由15個大小和形狀相同的長方形組成。每個長方形的周界是多少？(只須寫出答案) [2分]
- (b) 上圖的面積是多少？(只須寫出答案) [2分]

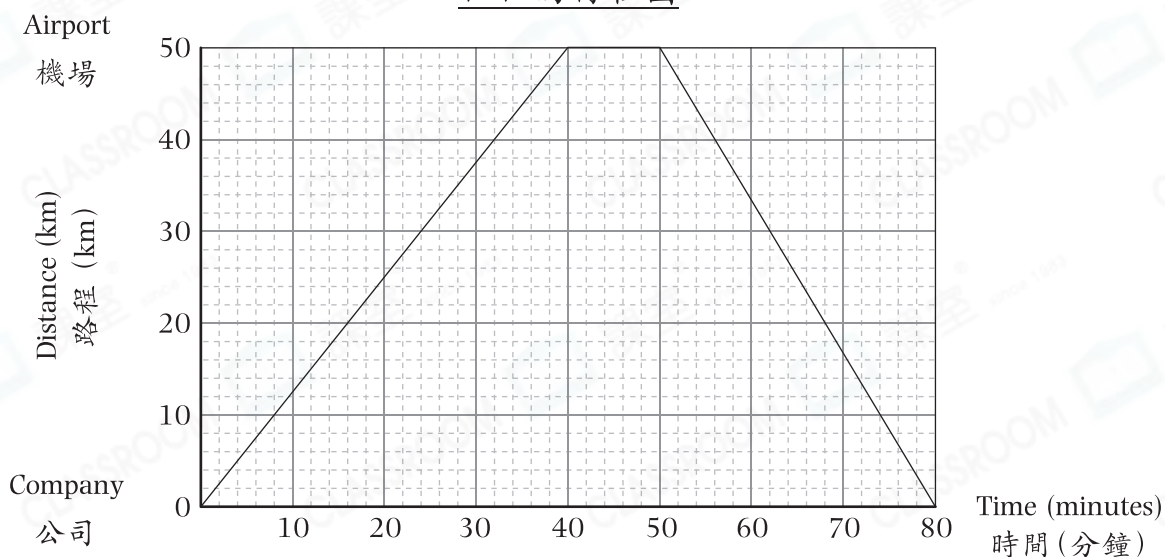
33. My uncle set off from the company. He drove the car towards east for 25km. He then turned to south and drove to the airport for another 25km.

- (a) What is the direction of the company from the airport? (Give the answer only) [2 marks]

33. 叔叔駕車從公司出發，他向東方行駛了25km後，再轉向南方又行駛了25km到達機場。

- (a) 公司在機場的哪一方？(只須寫出答案) [2分]

Travel Graph of My Uncle
叔叔的行程圖



- (b) My uncle started his journey at 11:45 a.m. When did he arrive at the airport? (Give the answer only) [2 marks]

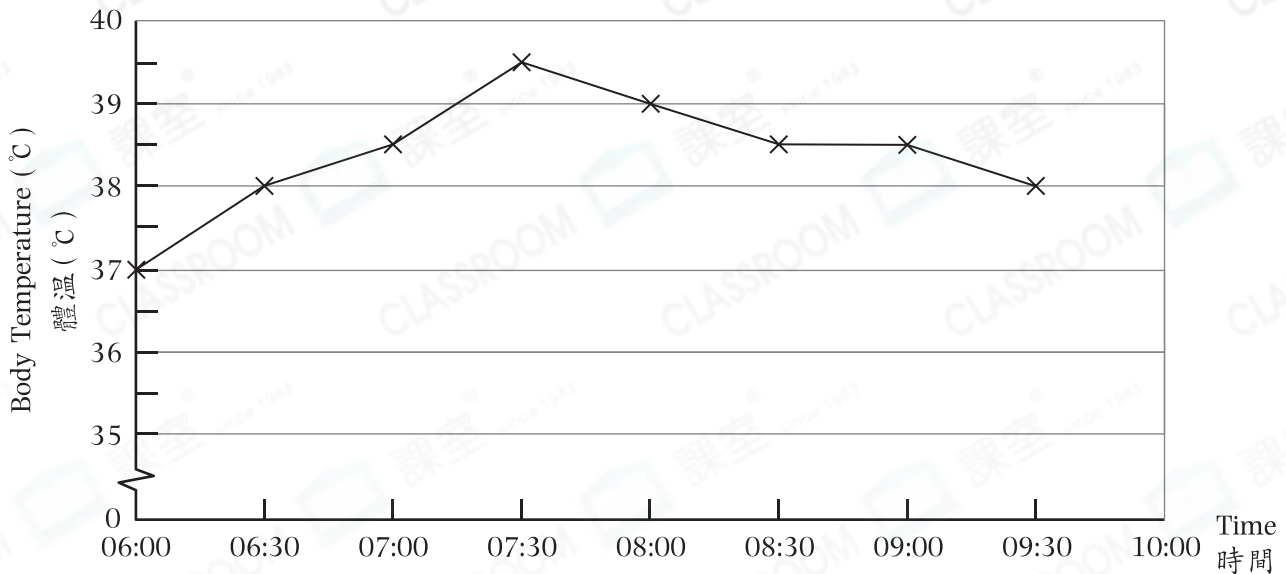
- (c) What was my uncle's average driving speed for the whole journey? (Use equation to solve the problem and show your working) [4 marks]

- (b) 叔叔在11:45 a.m. 駕車出發。他在何時到達機場？(只須寫出答案) [2分]

- (c) 叔叔全程的平均速率是多少？(須用方程列式計算) [4分]

Record of Ryan's Body Temperature from 6a.m. to 10a.m. Yesterday

志源昨天早上6至10時的體溫記錄



34. (a) The body temperature of Ryan returned to 36.5°C at 10 o'clock yesterday morning. Complete the broken line graph on the answer sheet. [2 marks]

(b) Comparing the body temperature of Ryan, what was the difference between the highest temperature and the lowest temperature? (Give the answer only) [2 marks]

(c) Which period did Ryan's body temperature keep rising? (Give the answer only) [2 marks]

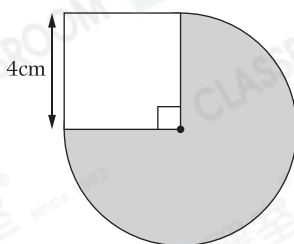
(d) For how long altogether was Ryan's body temperature at 38°C or above? (Give the answer only) [2 marks]

34. (a) 在昨天早上10時，志源的體溫回落至 36.5°C ，在答題紙上完成折線圖。 [2分]

(b) 試比較志源的最高體溫與最低體溫，體溫相差多少？(只須寫出答案) [2分]

(c) 志源在哪一段時間的體溫持續上升？(只須寫出答案) [2分]

(d) 志源的體溫在 38°C 或以上的時間共有多久？(只須寫出答案) [2分]



35. (a) Draw the line(s) of symmetry in the figure on the answer sheet.
[2 marks]

(b) What is the area of the shaded part? (Take π as 3.14)
[4 marks]

35. (a) 在答題紙的圖形上畫出對稱軸。
[2分]

(b) 陰影部分的面積是多少？(取 π 為 3.14)
[4分]

36. The following shows the number of sprinters. Each player could only join one sprint.

Sprint Events 短跑項目	50m	100m	200m	400m
Number of Players 運動員人數	24	25	36	35

36. 以下是參加短跑比賽的運動員人數。每名運動員只可以參加一個項目。

(a) What percentage of players is in the 200m race? [4 marks]

(b) Mandy believed that when each sprint event has 6 players quit, there will be no change in the percentage of the number of players in the 200m race. Do you agree with her? Explain your conclusion. [4 marks]

(a) 參加 200m 比賽的運動員佔總人數的百分之幾？ [4分]

(b) 思燕認為當每項比賽都減少 6 名運動員時，參加 200m 比賽的運動員佔總人數的百分數並沒有改變，你同意嗎？試解釋你的結論。 [4分]

HONG KONG ATTAINMENT TEST

香港學科測驗

Pre-Secondary One Mathematics Mock Paper 5

中一入學前數學科模擬試卷(五)

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	1-14	15-19	20-25	26-28	29-30
	Marks 分數					
Section B 乙部	31(a)					
	31(b)					
	32(a)					
	32(b)					
	33(a)					
	33(b)					
	33(c)					
	34(a)					
	34(b)					
	34(c)					
	34(d)					
	35(a)					
	35(b)					
	36(a)					
36(b)						
(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)	The fraction was _____ . 葡萄和橙共佔所有水果的_____。	2	<input type="text"/>
31(b)		4	<input type="text"/>
32(a)	The perimeter of each rectangle is _____ cm. 每個長方形的周界是_____ cm。	2	<input type="text"/>
32(b)	The area of the above figure is _____ cm ² . 上圖的面積是_____ cm ² 。	2	<input type="text"/>
33(a)	The company is in the _____ of the airport. 公司在機場的_____方。	2	<input type="text"/>
33(b)	He arrived at the airport at _____ . 他在_____到達機場。	2	<input type="text"/>

Go On To Next Page
轉下頁續答

Marks
估分

Marks
得分

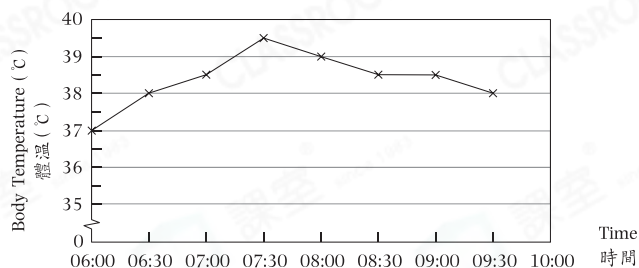
33(c)

4

34(a)

Record of Ryan's Body Temperature from 6a.m. to 10a.m. Yesterday

志源昨天早上6至10時的體溫記錄



2

34(b)

The difference was _____ °C .

體溫相差 _____ °C 。

2

34(c)

Ryan's body temperature kept rising from

_____ to _____ .

志源的體溫從 _____ 至 _____ 持續上升。

2

34(d)

Ryan's body temperature was at 38 °C or above for

_____ hour(s) altogether.

志源的體溫在 38 °C 或以上的時間共有 _____ 小時。

2

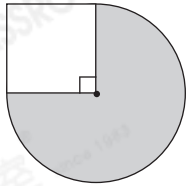
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轉下頁續答

Marks
估分

Marks
得分

35(a)



2

35(b)

4

36(a)

4

36(b)

Because
因為

* agree / disagree (*circle the answer)

* 同意 / 不同意 (*圈出答案)

4

END
完