

HONG KONG ATTAINMENT TEST

香港學科測驗

Pre-Secondary One

中一入學前

Mathematics

數學

Mock Paper 6

模擬試卷(六)

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。



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. After rounding off 32 999 654 to one of the following places, the approximate value was different from that of the others. What is that place?

- A. hundreds
- B. thousands
- C. ten thousands
- D. hundred thousands

1. 把 32 999 654 取近似值至以下其中一個位，得出的近似值與其他的不同。該位是什麼？

- A. 百位
- B. 千位
- C. 萬位
- D. 十萬位

2. 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?

2. 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？

44

45

46

50

- A. 93
- B. 84
- C. 78
- D. 72

- A. 93
- B. 84
- C. 78
- D. 72

3. The first six multiples of H are:
 $H, 32, 48, 64, 80, 96$
 Which of the following is **not** a factor of H ?

- A. 1
- B. 4
- C. 6
- D. 8

3. H 的首六個倍數是：
 $H, 32, 48, 64, 80, 96$
 下列哪一個數**不是** H 的因數？

- A. 1
- B. 4
- C. 6
- D. 8

$$\begin{array}{r} P \ 5 \\ \times 8 \ Q \\ \hline \end{array}$$

4. Which of the following options can make the above expression to be the **greatest** and **even number**?

- A. $P = 9, Q = 8$
- B. $P = 9, Q = 1$
- C. $P = 8, Q = 9$
- D. $P = 8, Q = 8$

4. 下列哪一個選項能使以上算式得出一個**最大的偶數**？

- A. $P = 9, Q = 8$
- B. $P = 9, Q = 1$
- C. $P = 8, Q = 9$
- D. $P = 8, Q = 8$

5. The original price of a bowl was \$15.5. A reduction of \$2 each bowl would be given for any purchase of 20 bowls or above. If Anna bought 12 bowls, how much should she pay?

- A. \$162
- B. \$186
- C. \$270
- D. \$310

5. 每個碗原價 \$15.5，購買 20 個或以上，每個可減免 \$2。如果惠美購買 12 個碗，她須付款多少？

- A. \$162
- B. \$186
- C. \$270
- D. \$310

6. The correct answer of an expression was 1524.367, but May wrongly exchanged the tenth digit and the thousandth digit. Which of the following numbers was May's answer?

- A. 3524.167
- B. 2514.367
- C. 1524.637
- D. 1524.763

6. 某算式的正確答案是1524.367，但家欣卻誤把十分位和千分位的數字互換了。以下哪一個是家欣的答案？

- A. 3524.167
- B. 2514.367
- C. 1524.637
- D. 1524.763

7. This morning my father put a \$500 note in his wallet. Then he paid \$428.5 with cash in a restaurant. The remaining cash in his wallet was \$86.3. How much money was in his wallet before he put the \$500 note?

- A. \$14.8
- B. \$71.5
- C. \$342.2
- D. \$431.7

7. 早上，爸爸把一張\$500紙幣放入錢包，然後他在餐廳以現金付賬\$428.5，他的錢包裏還餘下\$86.3。爸爸的錢包在放入\$500前有款項多少？

- A. \$14.8
- B. \$71.5
- C. \$342.2
- D. \$431.7

8. Tom has 36 \$10 and \$20 vouchers altogether. They are worth \$470. If Tom has 14 more \$10 vouchers than \$20 vouchers, how many \$10 vouchers does he have?

- A. 25
- B. 22
- C. 11
- D. 8

8. 浩浩有\$10和\$20優惠券共36張，它們總值\$470。如果浩浩的\$10優惠券比\$20優惠券多14張，他有\$10優惠券多少張？

- A. 25
- B. 22
- C. 11
- D. 8

9. My teacher has 178 candies. How many more candies does she need to buy at least to divide the candies evenly among 28 students?

- A. 6
- B. 10
- C. 18
- D. 28

9. 老師有 178 顆糖果，她最少要再買多少顆才能把這些糖果平均分給 28 名學生？

- A. 6
- B. 10
- C. 18
- D. 28

10. A cheese tart costs $\$9\frac{1}{2}$. A fruit tart costs $\$8\frac{1}{5}$. Martin has \$50. After buying a fruit tart, how many cheese tarts at most can he buy with the money left?

- A. 2
- B. 3
- C. 4
- D. 5

10. 每個芝士撻售 $\$9\frac{1}{2}$ ，每個鮮果撻售 $\$8\frac{1}{5}$ 。銘天有 \$50，買了一個鮮果撻後，餘款最多可買芝士撻多少個？

- A. 2
- B. 3
- C. 4
- D. 5

11. A ranch has 2500L of milk. The milk is put into bottles of capacity of $\frac{1}{5}$ L and then every 4 bottles is packed into one box. How many boxes of milk does the ranch have?

- A. 125
- B. 625
- C. 3125
- D. 12 500

11. 牧場有牛奶 2500L，將牛奶注入容量是 $\frac{1}{5}$ L 的瓶子內，並以每 4 瓶包裝成一盒。牧場有牛奶多少盒？

- A. 125
- B. 625
- C. 3125
- D. 12 500

12. There are 390 students in a school. $\frac{3}{5}$ of the students are boys. $\frac{1}{6}$ of girls are nearsighted. How many girls are not nearsighted?

- A. 26
- B. 130
- C. 156
- D. 195

12. 學校有 390 名學生，男生佔 $\frac{3}{5}$ ，女生中近視的佔 $\frac{1}{6}$ ，沒有近視的女生共有多少人？

- A. 26
- B. 130
- C. 156
- D. 195

13. If $\frac{\star}{7} = \frac{24}{\ast}$ and $\frac{\star}{7}$ is a proper fraction, what numbers can \star and \ast be?

- A. $\star = 8, \ast = 21$
- B. $\star = 6, \ast = 28$
- C. $\star = 4, \ast = 35$
- D. $\star = 2, \ast = 70$

13. 如果 $\frac{\star}{7} = \frac{24}{\ast}$ ，且 $\frac{\star}{7}$ 是真分數，那麼 \star 和 \ast 可能是什麼數字？

- A. $\star = 8, \ast = 21$
- B. $\star = 6, \ast = 28$
- C. $\star = 4, \ast = 35$
- D. $\star = 2, \ast = 70$

14. The table below shows the capacity of four containers.

P	Q	R	S
$1\frac{9}{10}$ L	$1\frac{17}{20}$ L	$1\frac{3}{4}$ L	$2\frac{1}{5}$ L

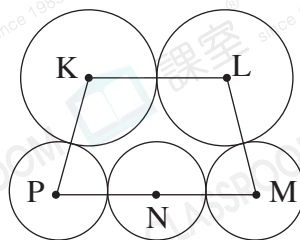
Which container's capacity is closest to 2L?

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

14. 以下是四個容器的容量。

哪一個容器的容量最接近 2L？

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

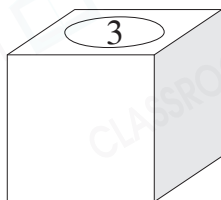


15. In the above figure, there are 2 large circles of the same size and 3 small circles of the same size. K, L, M, N and P are the centres of 5 circles. The lengths of PM and KP are 68cm and 39cm respectively. What is the diameter of a large circle?

- A. 44cm
- B. 22cm
- C. 17cm
- D. 10cm

15. 上圖中，有兩個大小相同的大圓和三個大小相同的小圓。K、L、M、N和P是這五個圓的圓心。PM和KP的長度分別是68cm和39cm。一個大圓的直徑是多少？

- A. 44cm
- B. 22cm
- C. 17cm
- D. 10cm



16. A cubic lucky dip is unfolded to give a net, as shown in the above figure. If the face with the number '3' is the top of the lucky dip, which number is at the bottom of the lucky dip?

- A. 1
- B. 2
- C. 5
- D. 6

16. 把一個正方體抽獎箱展開後，得出一個摺紙圖樣，如上圖所示。如果摺紙圖樣中寫有數字「3」的一面是抽獎箱的頂部，那麼在它的底部是哪一個數字？

- A. 1
- B. 2
- C. 5
- D. 6

17. Which of the following **must be** correct?

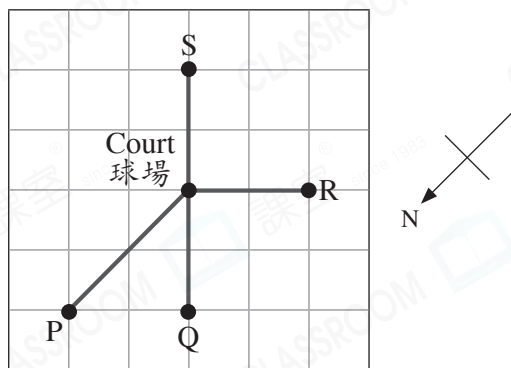
- I. A trapezium has two right angles.
- II. The four angles of a square are equal.
- III. The opposite sides of a quadrilateral are parallel.

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

17. 以下哪項/些描述是**必定**正確的？

- I. 梯形有2個直角。
- II. 正方形的四個角相等。
- III. 四邊形的對邊平行。

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

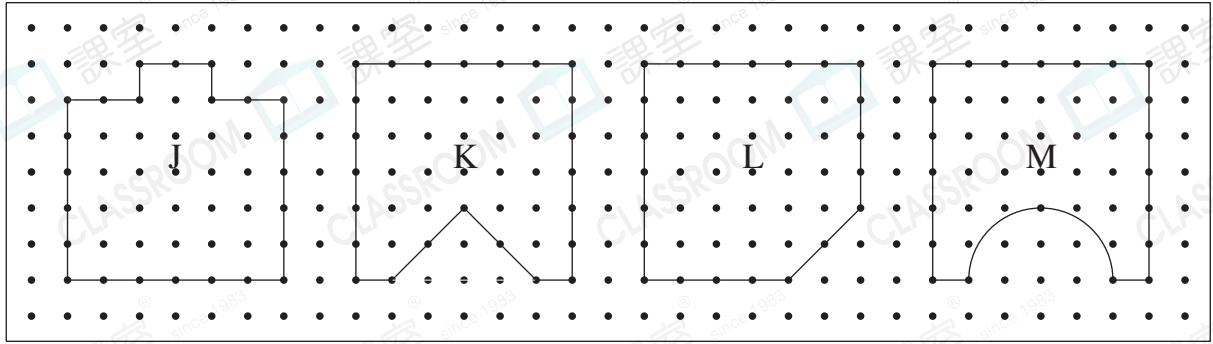


18. Four people P, Q, R and S met up to play basketball. They went to the Court from different places. Finally, the person walking in the southeast arrived at the Court first. Who arrived at the Court first?

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

18. P、Q、R和S四人相約一起打籃球。他們分別走向球場，結果向東南方走的最先到達球場，那麼是誰最先到達球場？

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

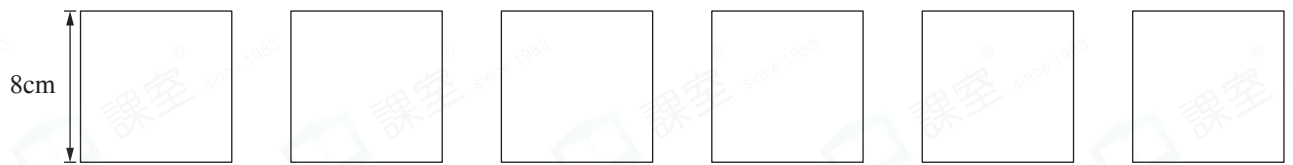


19. Which of the above figures has the longest perimeter?

- A. J
- B. K
- C. L
- D. M

19. 以上哪個圖形的周界是最長的？

- A. J
- B. K
- C. L
- D. M



20. 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. 104cm
- C. 80cm
- D. 64cm

20. 用以上6個大小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. 104cm
- C. 80cm
- D. 64cm

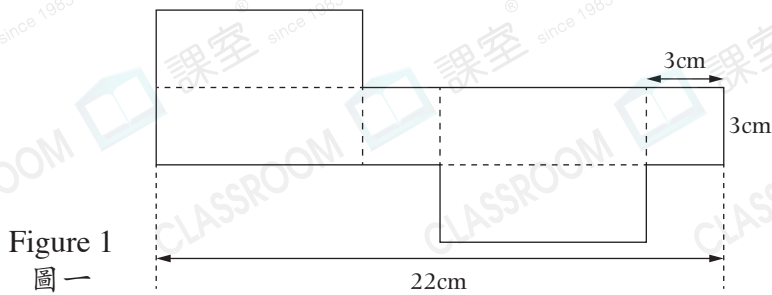


Figure 1
圖一

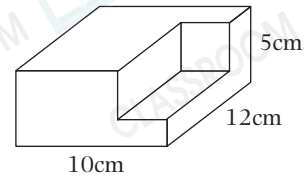


Figure 2
圖二

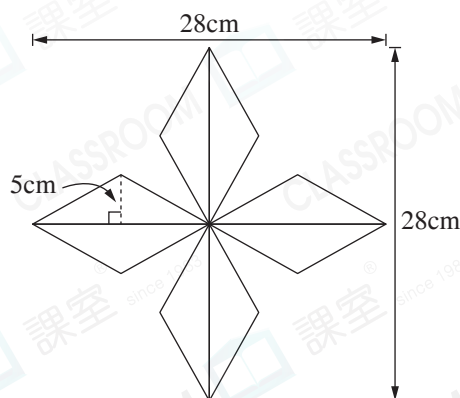
21. After the small cuboid formed by the net in Figure 1 is combined with the solid in Figure 2, a large cuboid is formed. The large cuboid is 10cm long, 12cm wide and 5cm high. What is the volume of the solid in Figure 2?

- A. 600cm^3
- B. 528cm^3
- C. 402cm^3
- D. 72cm^3

21. 把圖一的摺紙圖樣摺成小長方體後，剛好可以和圖二的立體組成一個長、闊、高分別為10cm、12cm、5cm的大長方體。圖二的體積是多少？

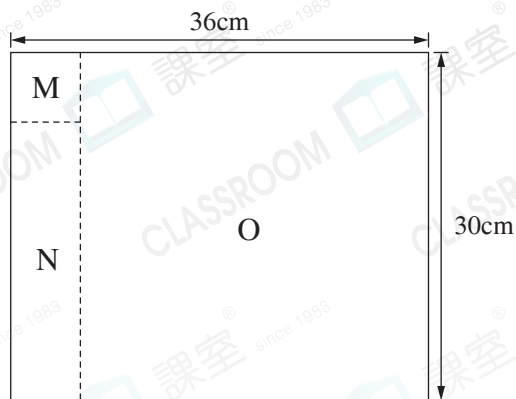
- A. 600cm^3
- B. 528cm^3
- C. 402cm^3
- D. 72cm^3

22. The figure below is formed by 8 triangles of the same size and same shape. What is the area of the figure below?



22. 下圖是由8個大小和形狀相同的三角形組成。下圖的面積是多少？

- A. 560cm^2
- B. 280cm^2
- C. 140cm^2
- D. 35cm^2

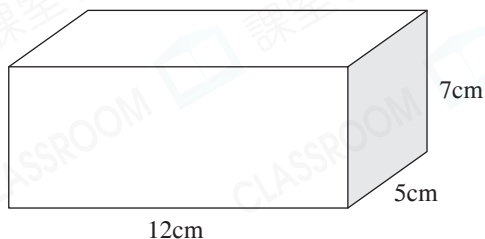


23. In the above figure, M and O are two squares of different sizes. What is the area of N?

- A. 36cm^2
- B. 144cm^2
- C. 674cm^2
- D. 846cm^2

23. 上圖中，M和O是兩個大小不同的正方形。N的面積是多少？

- A. 36cm^2
- B. 144cm^2
- C. 674cm^2
- D. 846cm^2

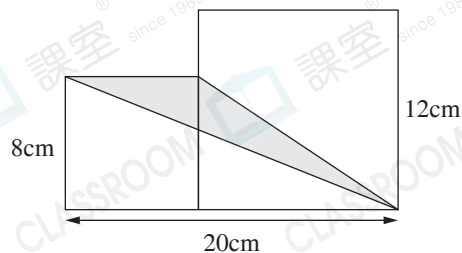


24. The largest cube is cut out from the above cuboid. What is the volume of this cube?

- A. 125cm^3
- B. 343cm^3
- C. 420cm^3
- D. 1728cm^3

24. 從上圖長方體中切去一個最大的正方體，正方體的體積是多少？

- A. 125cm^3
- B. 343cm^3
- C. 420cm^3
- D. 1728cm^3



25. The above figure is formed by two squares of sides 8cm and 12cm. What is the area of the shaded part?

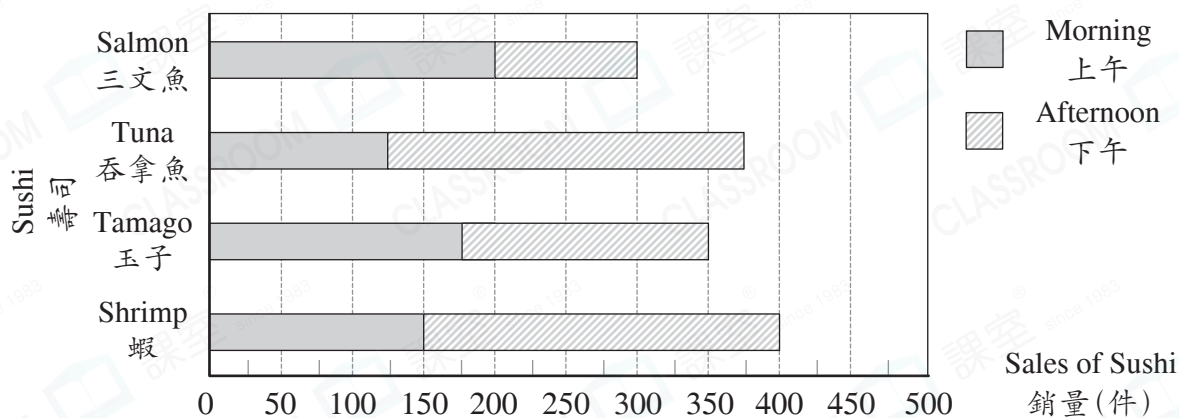
- A. 80cm^2
- B. 64cm^2
- C. 32cm^2
- D. 16cm^2

25. 上圖是由兩個邊長為8cm和12cm的正方形組成，陰影部分的面積是多少？

- A. 80cm^2
- B. 64cm^2
- C. 32cm^2
- D. 16cm^2

Sales of Sushi of a Sushi Shop Today

壽司店今天壽司的銷量



26. According to the above graph, which kind of sushi has the sale in the morning half of that in the afternoon?

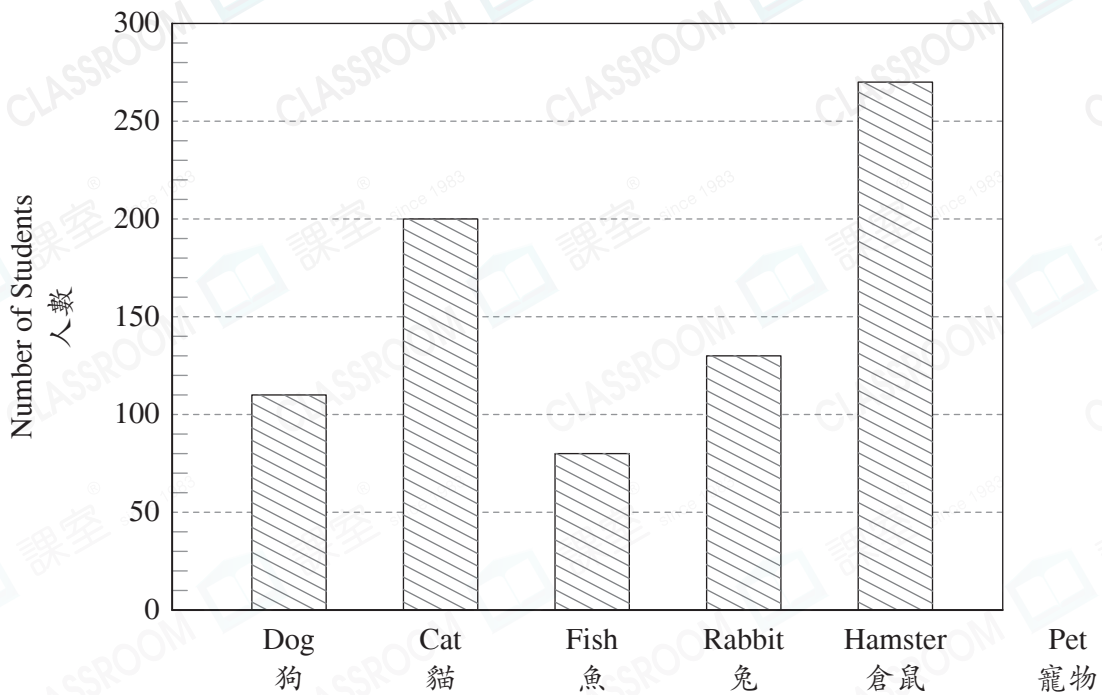
- A. Salmon
- B. Tuna
- C. Tamago
- D. Shrimp

26. 根據上圖，哪一種壽司上午的銷量是下午的一半？

- A. 三文魚
- B. 吞拿魚
- C. 玉子
- D. 蝦

Favourite Pets of Students of a School

某校學生最喜愛的寵物



27. By the one-student-one-vote scheme, students voted for their favourite pets and the result was given above. It was known that 17 students were absent from the voting. How many students originally were there in the school?

- A. 727
- B. 787
- C. 790
- D. 807

27. 某校學生以一人一票的方式選出他們喜愛的寵物，結果如上。已知投票當日有17名學生缺席，該學校原有學生多少人？

- A. 727
- B. 787
- C. 790
- D. 807

28. There were 8 participants in a diving activity. If the cost for hiring coaches was \$ g and the rental fee of tools for each participant was \$105, what was the total cost for this activity?

- A. $\$(8g + 105)$
- B. $\$(g + 105)$
- C. $\$(8g + 840)$
- D. $\$(g + 840)$

28. 一個潛水活動有8位參加者。如果聘請教練的費用是\$ g ，每位參加者的用具租借費是\$105，那麼整個活動的總費用是多少？

- A. $\$(8g + 105)$
- B. $\$(g + 105)$
- C. $\$(8g + 840)$
- D. $\$(g + 840)$

29. Hebe weighs y kg. Judy's weight is 18kg lighter than twice of Hebe's weight. Judy weighs 58kg. Which of the following equations can be used to find Hebe's weight?

- A. $2y - 18 = 58$
- B. $\frac{y}{2} - 18 = 58$
- C. $2y + 18 = 58$
- D. $\frac{y}{2} + 18 = 58$

29. 知畫的體重是 y kg，知世的體重比知畫的2倍少18kg。知世的體重是58kg。下列哪一道方程可找出知畫的體重？

- A. $2y - 18 = 58$
- B. $\frac{y}{2} - 18 = 58$
- C. $2y + 18 = 58$
- D. $\frac{y}{2} + 18 = 58$

30. If $\frac{K}{3} - 9 = 17$, then $91 - K = ?$

- A. 13
- B. 24
- C. 67
- D. 78

30. 如果 $\frac{K}{3} - 9 = 17$ ，那麼 $91 - K = ?$

- A. 13
- B. 24
- C. 67
- D. 78

End of Section A

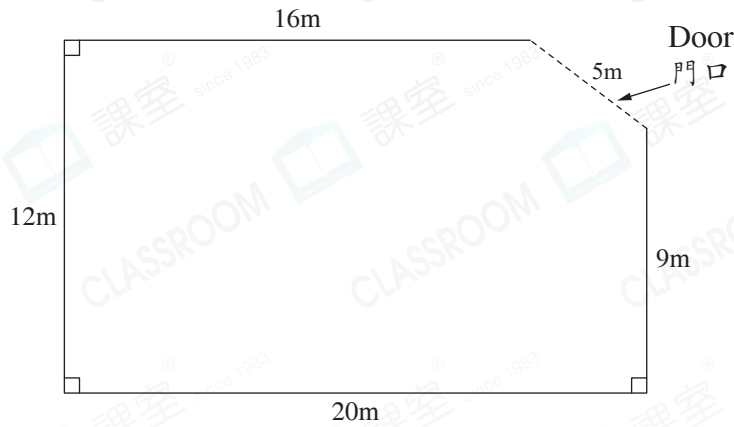
甲部完

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. The above shows the plan of the activity room.

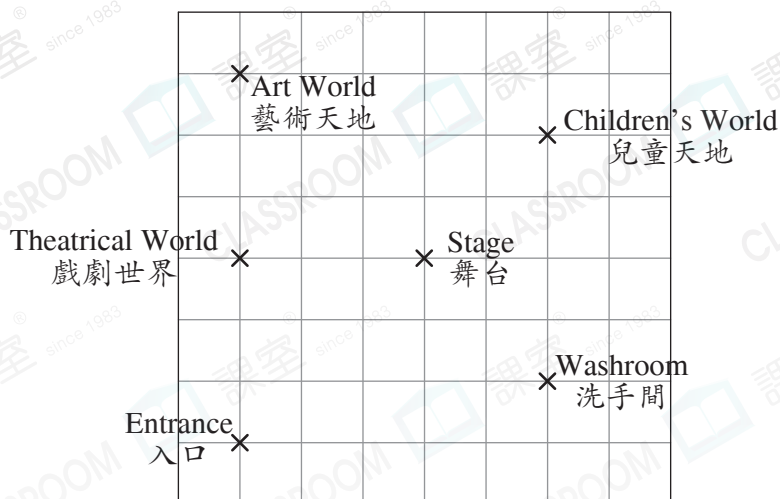
(a) What is the area of the activity room? [4 marks]

(b) Handrail will be installed on the walls of the activity room except the Door. The cost of installing the handrail is \$64 per metre. What is the cost for installing the handrail? (Give the answer only) [2 marks]

31. 以上是一個活動室的平面圖。

(a) 活動室的面積是多少？ [4分]

(b) 除門口外，活動室的牆上要安裝扶手，每米的費用是\$64，安裝費用是多少？（只須寫出答案） [2分]



32. The above shows the floor plan of a book fair.

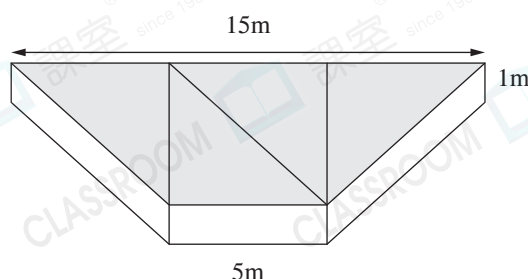
(a) The Entrance was in the southeast of the Stage. What was the direction of the Art World from the Washroom? (Give the answer only) [2 marks]

(b) The Stage was formed by 4 triangular prisms of the same size and same shape. The base of each triangular prism was a right-angled isosceles triangle. The Stage was covered with carpets, as shown in the figure below. What was the total area of the carpets? [4 marks]

32. 以上是書展場地的平面圖。

(a) 入口在舞台的東南方，藝術天地在洗手間的哪一方？(只須寫出答案) [2分]

(b) 舞台由四個大小和形狀都相同的三角柱組成。三角柱的底是一個等腰直角三角形。舞台鋪上了地毯，如下圖所示。地毯的總面積是多少？ [4分]



32. (c) The admission fee for the book fair was \$20 per visitor. The number of visitors was 402 312. How much did the fair get from the admission fees when corrected to the nearest ten thousand dollars? (Give the answer only) [2 marks]

32. (c) 書展入場費是每人\$20，入場人數是402 312人。書展的入場費收入取近似值至萬位應是多少？(只須寫出答案) [2分]

33. Each of 72 volunteers in Community Center would share an item of work for New Year's Eve party as follows: $\frac{7}{12}$ of the volunteers would be in charge of stage performance, $\frac{2}{9}$ of the volunteers would decorate the hall. Half of the remaining volunteers would buy the presents and the other half would keep order.

33. 社區中心有72名義工，每人為除夕晚會負責一項工作，分工如下： $\frac{7}{12}$ 的義工負責表演節目， $\frac{2}{9}$ 的義工佈置場地，餘下的義工，一半負責購買禮物，一半負責維持秩序。

(a) What fraction of the volunteers would be in charge of stage performance and decorate the hall? (Give the answer only) [2 marks]

(a) 負責表演節目及佈置場地的義工共佔全部義工的幾分之幾？(只須寫出答案) [2分]

(b) How many volunteers would keep order? (Give the answer only) [2 marks]

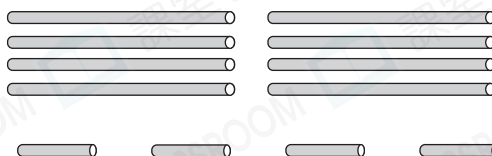
(b) 負責維持秩序的義工有多少人？(只須寫出答案) [2分]

34. A box of 'Fun Craft' contains 8 plastic balls and 12 plastic sticks in which 8 of them are 15cm long each and the rest are 5cm long each.

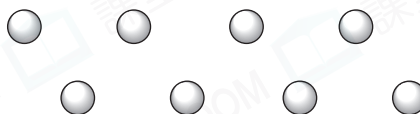


34. 一盒「興趣工藝」有 8 粒膠珠和 12 枝膠棒，其中 8 枝各長 15cm，其餘的各長 5cm。

Plastic sticks
膠棒



Plastic balls
膠珠



(a) Lucy uses a box of 'Fun Craft' to make a cuboid. On the answer sheet, draw the net of that cuboid.

[2 marks]

(b) David wants to buy 12 boxes of 'Fun Craft' and 2 bags of plastic balls. If a box of 'Fun Craft' costs $\$8\frac{7}{10}$ and a bag of plastic balls costs $\$1\frac{4}{5}$, how much does he pay in total? [4 marks]

(a) 樂恩利用一盒「興趣工藝」砌成一個長方體。在答題紙上，畫出該長方體的摺紙圖樣。

[2分]

(b) 韋博想購買 12 盒「興趣工藝」和 2 包膠珠。如果一盒「興趣工藝」售 $\$8\frac{7}{10}$ ，一包膠珠售 $\$1\frac{4}{5}$ ，他共須付多少？[4分]

Table of Price

價目表

Music box 音樂盒	\$95
Doll 公仔	\$58

35. Mr Lee wants to buy gifts for three daughters. If each of them would get a music box and two dolls, according to the above table, how much should he pay? [4 marks]

35. 李先生給三個女兒買禮物，如果她們每人得一個音樂盒和兩個公仔，根據上表，他須付款多少？ [4分]

Charge of the Car Park

停車場收費

First hour 首小時	\$y
Every half an hour thereafter 以後每半小時 (Half-hourly rate is charged for parking time less than half an hour) (不足半小時亦以半小時收費計算)	\$13

36. (a) Miss Chow parked her car in the car park for 4.8 hours. How much should she pay? (Give the answer only and express the answer in terms of y) [2 marks]

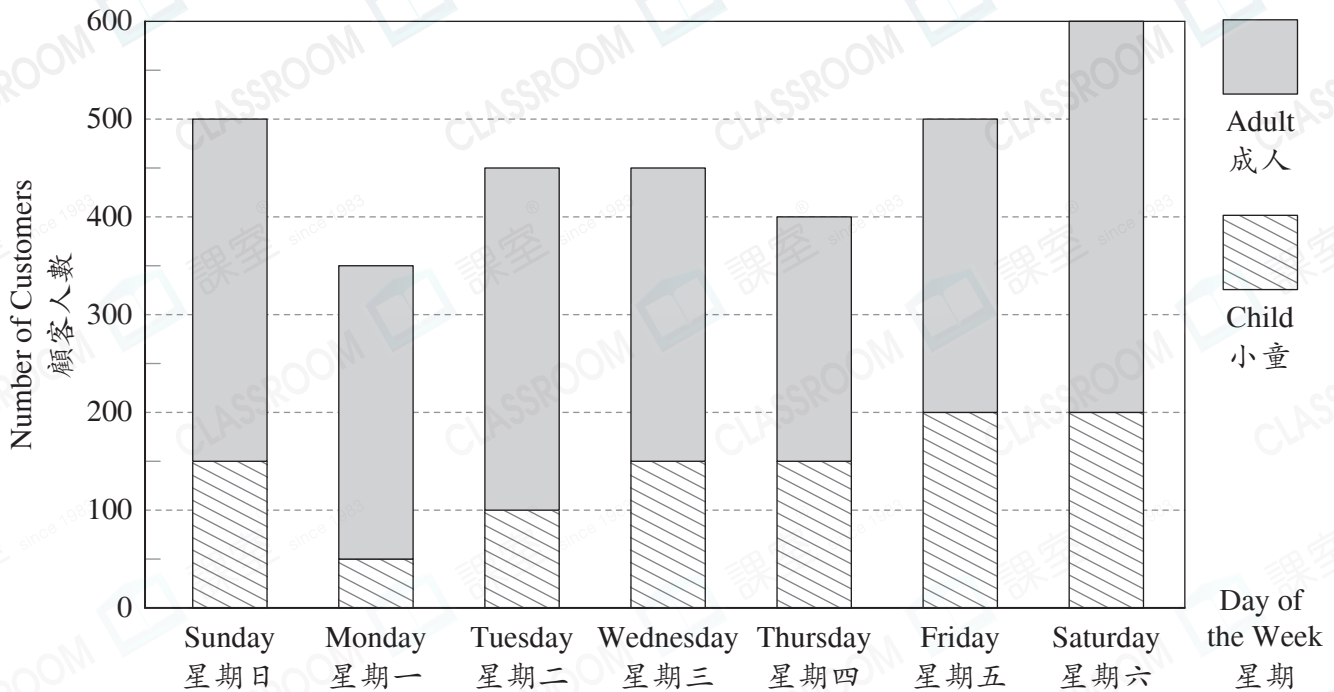
36. (a) 周小姐在停車場泊車4.8小時。她應付款多少？(只須寫出答案，答案以 y 表示) [2分]

- (b) If Miss Chow paid \$128 for parking, what was the charge for the first hour? (Use equation to solve the problem and show your working) [4 marks]

- (b) 若周小姐付了\$128停車費，首小時的收費是多少？(須用方程列式計算，並展示步驟) [4分]

Number of Customers Having Buffet in a Restaurant Last Week

餐廳上星期惠顧自助餐的顧客人數



37. (a) According to the graph and the table below, what was the total income on Monday? (Give the answer only) [2 marks]

37. (a) 根據統計圖及下表，星期一的總收入是多少？(只須寫出答案) [2分]

	Adult 成人	Child 小童
From Monday to Thursday 星期一至四	\$155	\$65
Friday, Saturday and Sunday 星期五、星期六和星期日	\$180	\$80

- (b) Mr Chan believed that, in the type adult, the income on Friday was more than that on Tuesday. Do you agree with him? Explain. [4 marks]

- (b) 陳先生認為，在成人類別，星期五的收入比星期二的多。你同意嗎？試解釋。 [4分]