天主教新民書院
升中一模擬測驗
數學科練習卷

姓名：_____　　測驗時間：50 分鐘

學生須知：

1. 本練習卷總分為 100 分。
2. 本練習卷共有兩部份：
   甲部：第 1 至第 30 題
   乙部：第 31 至 36 題
3. 全部題目均須回答。
4. 不准使用計算機。
5. 部份附圖不依比例所畫。

甲部 (60 分)

選出正確答案，學生只須填上所選答案前的英文字母。

1. 如果 $20=\frac{2}{5}x+9$，那麼 $2x=$？

   A. 145　　B. 91

   C. 55　　D. $27\frac{1}{2}$

2. 下列哪一個數的值最大？

   A. $\frac{37}{100}$　　B. $\frac{11}{40}$

   C. $\frac{2}{5}$　　D. 0.425

3. 本年參加醫療保健計劃的人數是 167261，把這個人數取約數至十萬。

   A. 100000　　B. 160000

   C. 170000　　D. 200000

4. $101\times98=$？

   A. $101\times100-2$　　B. $101\times100-98$

   C. $100\times98+1$　　D. $100\times98+98$

5. 8 和 88 的公因數共有多少個？

A. 2　　B. 3

C. 4　　D. 6

6. 多少個 $\frac{7}{8}$ 相加後的總和是 56？

A. 7　　B. 49

C. 60　　D. 64

7. 如果 $\frac{x}{7}+\frac{y}{7}=1$，那麼 $x+y=?$

A. 1　　B. 3.5

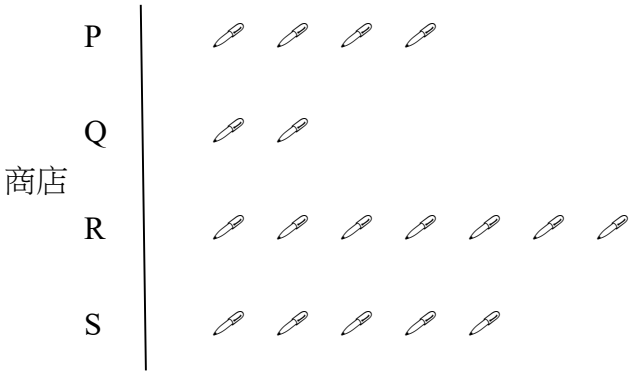
C. 7　　D. 14

8. 206 最少要加上哪一個數才可以被 12 整除？

A. 2　　B. 6

C. 8　　D. 10

9. 下圖是某些店舖的原子筆銷售量



每個 ✎ 代表 1000 枝

根據上圖，Q 店的原子筆銷售量是 P 店的多少倍？

A. 3　　B. 2

C. 1　　D. $\frac{1}{2}$

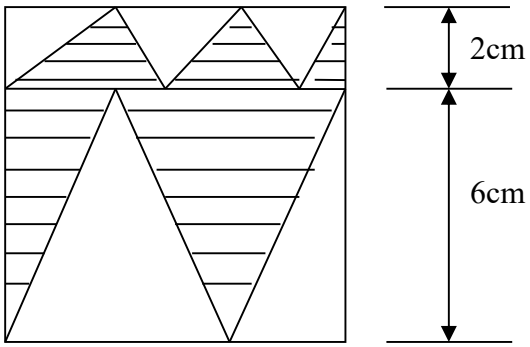
10. 下表是康健的考試成績，他在數學科的積分是多少？

科目	中文	英文	數學	常識	音樂	平均分
積分	88	90	？	79	76	82

A. 87　　B. 83

C. 77　　D. 67

11. 下圖是一個正方形，陰影部分佔全圖的百分之幾？



A. 50%　　B. 25%

C. $\frac{1}{2}$%　　D. $\frac{1}{4}$%

12. 小新把零用錢的$\frac{2}{5}$購買零食，把$\frac{1}{2}$用作交通費，餘下的款項儲蓄起來。儲蓄的款項佔全部零用錢的幾分之幾？

A. $\frac{9}{10}$　　B. $\frac{3}{10}$

C. $\frac{1}{10}$　　D. $\frac{1}{5}$

13. 首飾店的店主有鑽石 186 粒，他把鑽石平均分成 14 盒後，再把餘下的鑽石放進其中的一個盒中，這個盒共有鑽石多少粒？

A. 12　　B. 13

C. 17　　D. 18

14. Q 城和 R 城相距 120km。偉文在 9:05a.m.駕車從 Q 城出發，以平均速率 80km/h 前往 R 城，他在甚麼時候到達 R 城？

A. 9:45a.m.　　B. 10:10a.m.

C. 10:12a.m.　　D. 10:35a.m.

15. 一條繩長 7m，每$\frac{5}{8}$m 分成一段，最多可分成長度相同的繩多少段？

A. 12　　B. $11\frac{1}{5}$

C. 11　　D. $4\frac{3}{8}$

16. 尼龍繩兩條，分別可圍出兩個面積是 $81cm^2$ 和 $36cm^2$ 的正方形，兩條尼龍繩共長多少？

A. 60cm　　B. 54cm

C. 30cm　　D. 15cm

17. 文傑有 $63，永昌比文傑多 $y。如果永昌用 $15 購買書本，他還有款項多少？

A. $(48 - y)　　B. $(48 + y)

C. $(78 - y)　　D. $(78 + y)

18. 某機構有員工 880 人，男性佔 60%，男性較女性多幾人？

A. 176　　B. 276

C. 352　　D. 528

19. 雜誌以七折出售，售價是 $28。雜誌的原價是多少？

A. $47.6　　B. $40

C. $36.4　　D. $19.6

20. 圓柱體共有多少個面？

A. 2　　B. 3

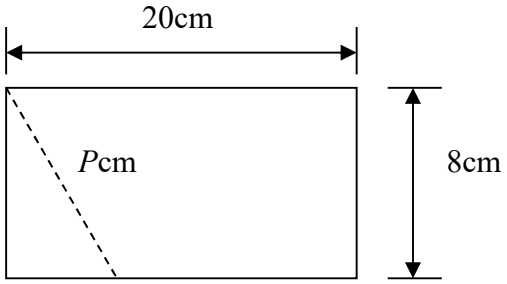
C. 4　　D. 5

21. 大輝參加慈善籌款活動。媽媽為了鼓勵大輝，他每籌得$1，媽媽便捐出$1.5作為善款。如果媽媽共給了大輝$825，大輝一共籌得善款多少？

A. $1650　　B. $1375

C. $1237　　D. $900

22.



上圖是一個長方形，沿虛線把一個三角形剪出，然後拼成另一個平行四邊形。該平行四邊形的周界是多少？

A. $(40 + 2P)$cm　　B. $(56 + 2P)$cm

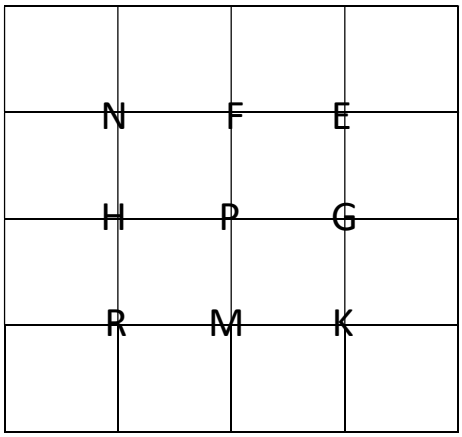
C. 56cm　　D. 160cm

23. $9 \times 21 \times 72$ 是 $2 \times 63 \times 54$ 的多少倍 ？

A. 2　　B. 3

C. 4　　D. 5

24.

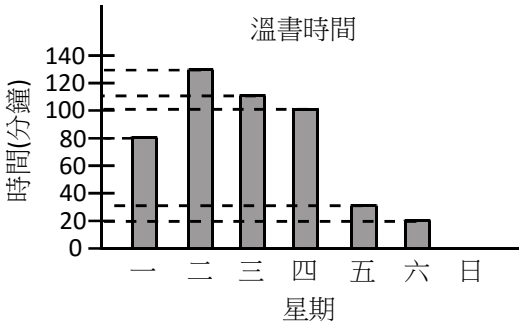


以上是一幅地圖。如果 G 是在 K 的東北方，那麼 P 的南方是甚麼地方？

A. N　　B. F

C. M　　D. K

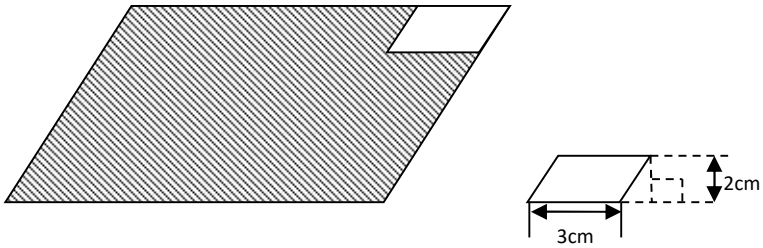
25. 根據下圖，星期二至星期四共溫習了多少分鐘？



A. 340　　B. 350

C. 355　　D. 360

26.



上圖中，大平行四邊形的底和高都是小平行四邊形的 4 倍，陰影部份的面積是多少？

A. $6cm^2$　　B. $24cm^2$

C. $64cm^2$　　D. $90cm^2$

27. 以下是射擊遊戲的計分方法：

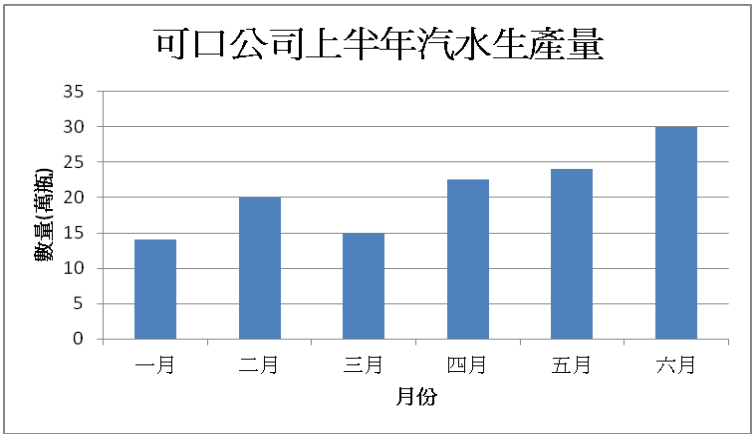
區域	分數
紅心	5
紅心以外	2
沒有擊中鏢靶	0

建生參加射擊遊戲時，射擊都擊中鏢靶，但只有 3 次擊中紅心，其餘的都在紅心以外。建生共得 29 分，他共射擊多少次？

A. 7　　B. 10

C. 14　　D. 15

28.



根據上圖，可口公司在六月比四月多生產了汽水多少瓶？

A. 7500　　B. 8500

C. 75000　　D. 85000

29. 家進在一張長方形的紙上畫一條直線，把它分為兩個梯形。以下哪項必定是正確的？

I. 這兩個梯形各有一隻銳角。

II. 這兩個梯形各有兩隻直角。

III. 這兩個梯形的面積相等。

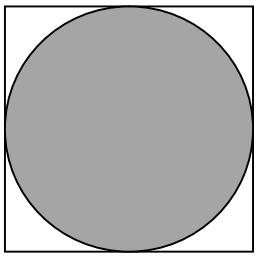
A. 只有 I 及 II

B. 只有 I 及 III

C. 只有 II 及 III

D. I、II 及 III

30.



上圖顯示一個圓形泳池，泳池外圍有一個周界是 64m 的正方形圍欄。天樂正在泳池中心，他最少要游多遠才可回到池邊？

A. 4m　　B. 8m

C. 16m　　D. 24m

甲部完

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. 某停車場的收費如下：

停車場泊車收費	
首 2 小時	每小時 $30
以後每半小時 (不足半小時以半小時收費計算)	$18

黃先生在下午 2 時 15 分把汽車停泊在停車場，他在當天下午 5 時 05 分駕車離開。

(a) 他的汽車停泊了多少時間？(只須寫出答案) (2 分)

(b) 他須付泊車費多少？ (4 分)

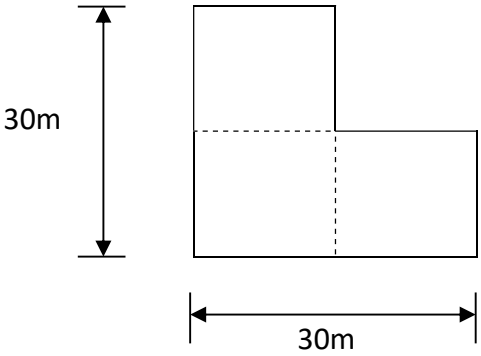
32. 某便利店大減價，各種軟糖以原價八折出售。善儀買了 16 包軟糖，共付款 $57.6。軟糖平均每包原價是多少？(須用方程列式計算) (4 分)

33. 零食店店主將 40.5kg 的魷魚絲分為每 0.75kg 一袋。

(a) 店主可將魷魚絲分為多少袋？(只須寫出答案) (2 分)

(b) 店主出售每公斤魷魚絲可賺$108.4。如果把全部魷魚絲售出，他可賺多少？ (4 分)

34.

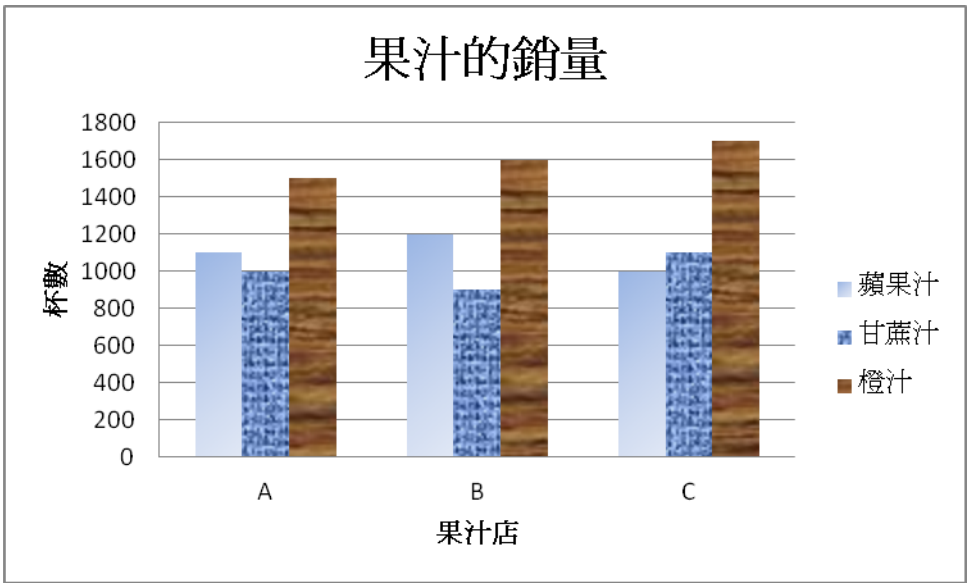


李先生有一幅由 3 個大小相同的正方形組成的土地，如上圖所示。

(a) 李先生希望把該土地平均分成四幅大小相同的土地，分給他的四個兒子。在圖形中加上直線，畫出李先生希望分成的四幅土地。 (3 分)

(b) 每個兒子分得的土地面積是多少？ (4 分)

35.



上圖是三間果汁店上月售出果汁的情況。

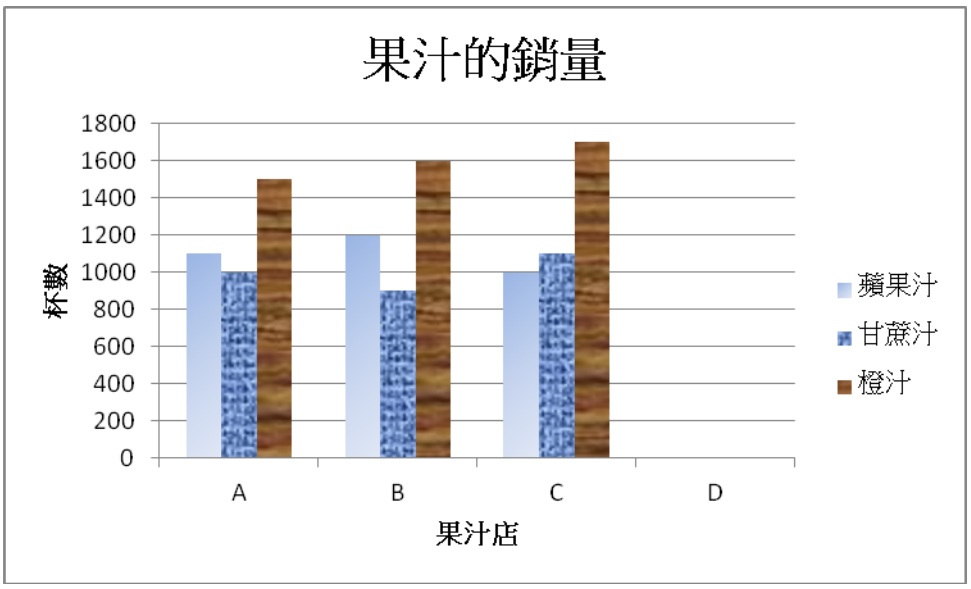
(a) 在三間果汁店中，哪一間果汁店售出果汁的杯數最多？共售出多少杯？
(只須寫出答案) (2 分)

(b) 下表是果汁的售價。

果汁類別	蘋果汁	甘蔗汁	橙汁
售價	$15	$10	$12

A 店上月的收入是多少？ (4 分)

(c) D 店在上月售出蘋果汁 1600 杯、甘蔗汁 1300 杯、橙汁 1100 杯。在下圖畫出代表 D 店銷售量的棒。 (3 分)



36. 在一次數學比賽中，比賽分成三個回合進行，計分方法如下：

第一回合	答對一題得 10 分 答錯或棄權都不扣分
第二回合	答對一題得 20 分 答錯或棄權都不扣分
第三回合	答對一題得 40 分 答錯一題扣 20 分 棄權不扣分

(a) 下表顯示 6B 班在第一及第二回合的成績，6B 班在每個回合的積分是多少？(只須寫出答案，並以 x 表示第一回合的答案) (2 分)

	答對題數
第一回合	x
第二回合	7

(b) 完成兩個回合後，6B 班得 220 分，6B 班在第一回合答對多少題？(須用方程列式計算) (4 分)

(c) 第三回合有 20 題，6B 班答對了 14 題，答錯了 3 題。完成三個回合後，6B 班的總分是多少？(只須寫出答案) (2 分)

測驗卷完

答案

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

31. (a) 2 小時 50 分

(b) $30\times2+18\times2=\$96$

32. 每包售價是

$\$57.6\div16$

$=\$3.6$

每包原價是

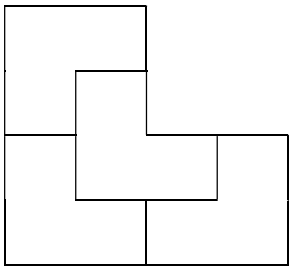
$\$3.6\div0.8$

$=\$4.5$

33. (a) 54 袋

(b) 他可賺 $40.5\times\$108.4=\$4390.2$

34. (a)

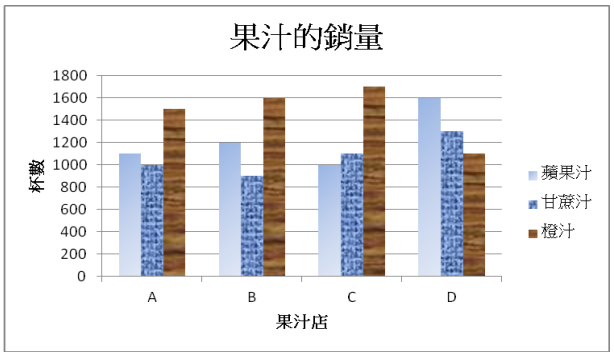


(b) 面積是 $30\times30\times\frac{3}{4}\times\frac{1}{4}=168\frac{3}{4}m^2$

35. (a) C，3800 杯

(b) 收入是 $\$15\times1100+\$10\times1000+\$12\times1500=\$44500$

(c)



36. (a) $10x + 140$

(b) $10x + 140 = 220$

$x = 8$

(c) $14 \times 40 - 3 \times 20 + 220 = 720$

Newman Catholic College

Secondary 1 mock test

Mathematics exercise

Name:_____ Time allowed for the test: 50 minutes

Instructions:

1. Total marks is 100.
2. This test contains two sections:
   Section A: Question 1 – 30
   Section B: Question 31 -36
3. Answer ALL questions.
4. The use of calculator is not allowed.
5. Not all diagrams are drawn to scale.

Section A (60 marks)

Choose the correct answer. You only need to write down the letter preceding the selected answer.

1. If $20 = \frac{2}{5}x + 9$, then $2x = ?$

   A. 145 B. 91

   C. 55 D. $27\frac{1}{2}$

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

   A. $\frac{37}{100}$ B. $\frac{11}{40}$

   C. $\frac{2}{5}$ D. 0.425

3. The number of people joining the Health Service this year is 167261, Express this number correct to the nearest hundred thousand.

   A. 100000 B. 160000

   C. 170000 D. 200000

4. $101 \times 98 = ?$

   A. $101 \times 100 - 2$ B. $101 \times 100 - 98$

   C. $100 \times 98 + 1$ D. $100 \times 98 + 98$

5. How many common factors are there for 8 and 88?

A. 2 B. 3

C. 4 D. 6

6. How many '$\frac{7}{8}$' should be added together to make the sum of 56?

A. 7 B. 49

C. 60 D. 64

7. If $\frac{x}{7}+\frac{y}{7}=1$, then $x+y=?$

A. 1 B. 3.5

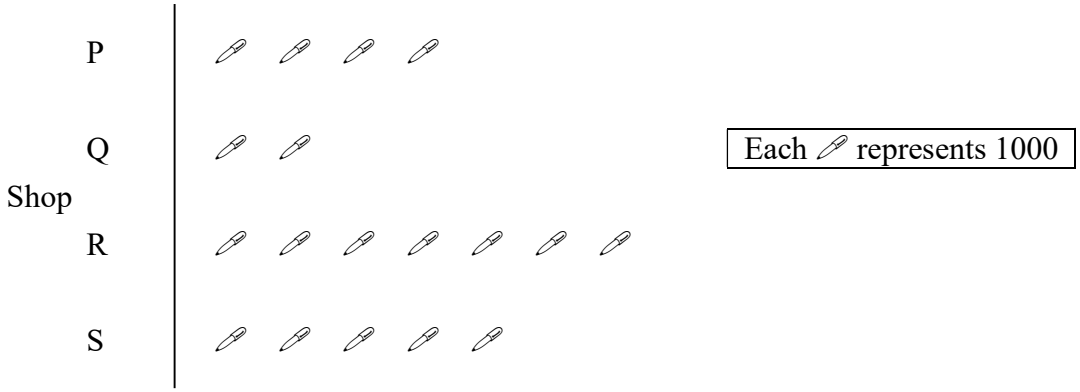
C. 7 D. 14

8. What is the least number to be addes to 206 so that it is divisible by 12?

A. 2 B. 6

C. 8 D. 10

9. The following figure shows the sale of pens in the store:



According to the above graph, how many times of the sales of pens in Shop P is the sales of pens in Shop Q?

A. 3 B. 2

C. 1 D. $\frac{1}{2}$

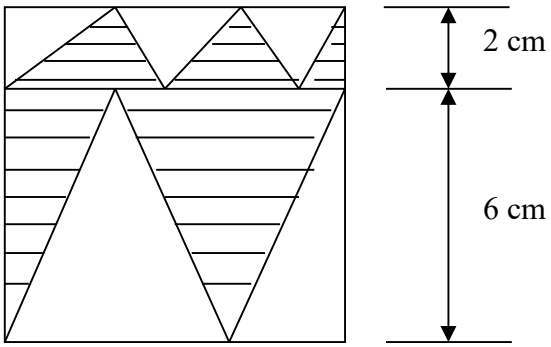
10.

Subject	Chinese	English	Mathematics	Liberal Studies	Music	Average Score
Score	88	90	?	79	76	82

The above table shows John's examination result. What is his score in Mathematics?

A. 87
B. 83
C. 77
D. 67

11. The following figure shows a square. What percentage of the figure is shaded?



A. 50%
B. 25%
C. $\frac{1}{2}\%$
D. $\frac{1}{4}\%$

12. Simon spent $\frac{2}{5}$ of his pocket money on buying snacks and $\frac{1}{2}$ on transport. Then he saved the remaining pocket money. What fraction of the pocket money was his savings?

A. $\frac{9}{10}$
B. $\frac{3}{10}$
C. $\frac{1}{10}$
D. $\frac{1}{5}$

13. A jeweller had 186 diamonds. After dividing them equally into 14 boxes, he placed the remaining diamonds into one of the boxes. How many diamonds were there in this box?

A. 12
B. 13
C. 17
D. 18

14. City Q and City R are 120km apart. William drove from City Q to City R at 9:05a.m. with an average speed of 80km/h. When did he arrive at City R?

A. 9:45a.m.
B. 10:10a.m.
C. 10:12a.m.
D. 10:35a.m.

15. A rope is 7m long. If it is cut into pieces of $\frac{5}{8}$m long each, how many ropes of equal length at most will there be?

A. 12
B. $11\frac{1}{5}$
C. 11
D. $4\frac{3}{8}$

16. Two ropes are used to form two separate squares of area $81cm^2$ and $36cm^2$. What is the total length of the two ropes?

A. 60cm
B. 54cm
C. 30cm
D. 15cm

17. John has \$63, Peter has \$y more than John. If Peter spends \$15 to buy books, how much would he have left?

A. \$(48 - y)
B. \$(48 + y)
C. \$(78 - y)
D. \$(78 + y)

18. There are 880 workers in a company, 60% of them are boys. How many boys more than girls are there?

A. 176
B. 276
C. 352
D. 528

19. A magazine was sold at \$28 with a discount of 30%. What was the original price of the magazine?

A. \$47.6
B. \$40
C. \$36.4
D. \$19.6

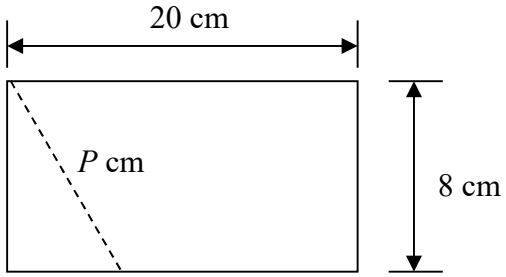
20. How many faces does a cylinder have?

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

21. David took part in a fund-raising activity for charity. To encourage him, his mother would give him \$1.5 as donation for every \$1 he raised. If his mother gave him \$825, how much did David raise altogether?

A. \$1650
B. \$1375
C. \$1237
D. \$900

22.



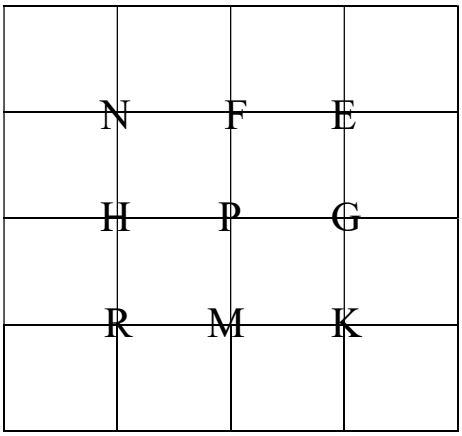
The above figure is a rectangle. A triangle is cut out along the dotted line. The two shapes are then put together to form another parallelogram. What is the perimeter of this parallelogram?

A. $(40 + 2P)$cm
B. $(56 + 2P)$cm
C. 56cm
D. 160cm

23. How many times of $9 \times 21 \times 72$ is $2 \times 63 \times 54$?

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

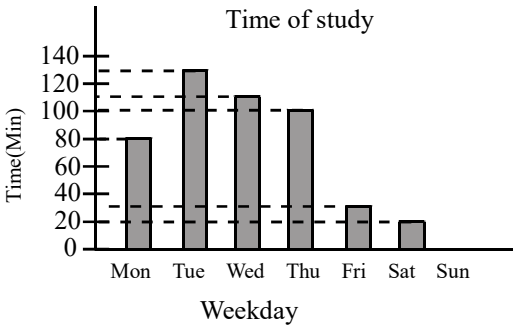
24.



The above graph is a map. If G is in the north-east of K, then what is south of P ?

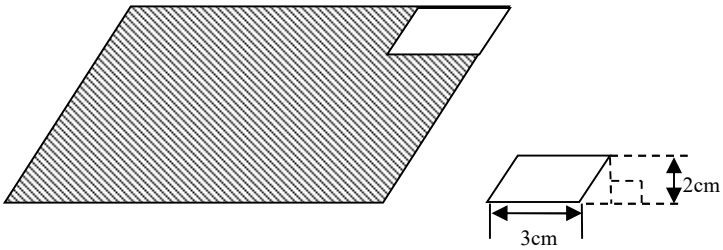
A. N
B. F
C. M
D. K

25. According to the diagram, what is the total time does the student revise from Tuesday to Thursday?



A. 340
B. 350
C. 355
D. 360

26.



In the above figure, the base and the height of the large parallelogram are 4 times of those of the small parallelogram. What is the area of the shaded part?

A. $6cm^2$
B. $24cm^2$
C. $64cm^2$
D. $90cm^2$

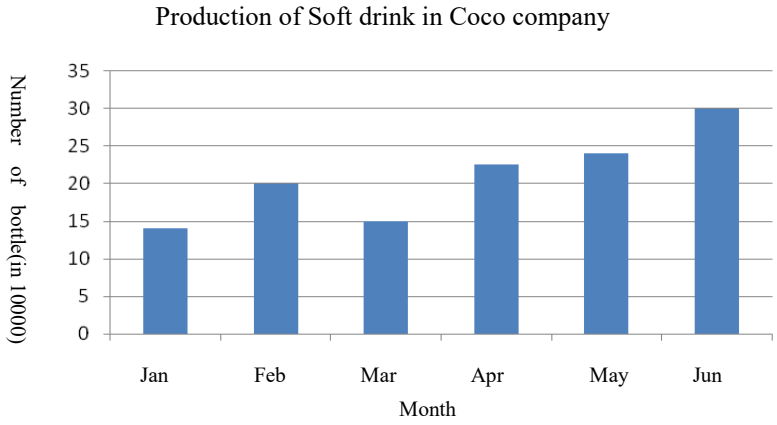
27. The following is the scoring of a darts game:

Area	Score
Bull's-eye	5
Outside Bull's-eye	2
Miss the Dartboard	0

Simon played the darts game and all his darts hit the dartboard. Only 3 of his darts hit the bull's-eye and the others just hit outside the bull's-eye. Simon got a total of 29 marks. How many darts altogether did Simon throw?

A. 7
B. 10
C. 14
D. 15

28.



According to the above graph, how many more bottles of soft drinks were produced in June than April by Coco Company?

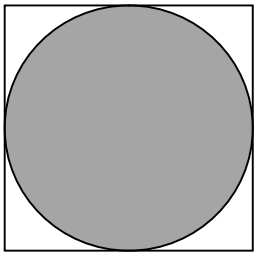
A. 7500
B. 8500
C. 75000
D. 85000

29. Tom drew a straight line on a piece of rectangular paper and divided it into two trapeziums. Which of the following must be correct?

I. These two trapeziums have one acute angle each.
II. These two trapeziums have two right angles each.
III. These two trapeziums have the same area.

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

30.



The above figure shows a circular swimming pool. There is a square fence of perimeter 64m outside the swimming pool. Jimmy is at the centre of the swimming pool. What is the least distance he has to swim in order to get back to the pool side?

A. 4m
B. 8m
C. 16m
D. 24m

End of Section A

Section B (40 marks)

Working steps must be shown in answering questions in this section unless specified otherwise.

31. The charge of a car park is as follows:

Charge of the Car Park	
The first 2 hours	\$30 per hour
Every half an hour thereafter (Half-hourly rate is charged for parking time less than half an hour)	\$18

Mr. Wong parked his car in the car park at 2:15 p.m. He drove away at 5:05 p.m. on the same day.

(a) How long did he park his car? (Give the answer only) (2 marks)

(b) How much parking fee should he pay? (4 marks)

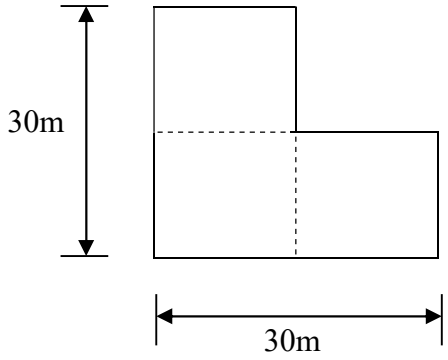
32. A shop held a sale. All kinds of sweet were sold at 20% off. Jane bought 16 packs of sweet for \$57.6. What was the average price of a pack of sweet originally? (Use equation to solve the problem and show your working) (4 marks)

33. The shopkeeper of a kiosk packed 40.5kg of sliced cuttlefish into 0.75kg each.

(a) How many packets of sliced cuttlefish did the shopkeeper pack? (Give the answer only) (2 marks)

(b) The shopkeeper could make a profit of \$108.4 per kilogram of the sliced cuttlefish sold. How much profit would he make if he sold all of the sliced cuttlefish? (4 marks)

34.



Mr. Lee has a piece of land formed by 3 squares of the same size as shown above.

(a) To share out the land among his four sons, Mr. Lee wishes to divide the land into four pieces of the same size. By adding straight lines to the figure on the answer sheet, draw the four pieces of land that Mr. Lee wishes to form. (3 marks)

(b) What is the area of the land for each son? (4 marks)

35.

The above chart shows the sales of juice in three juice shops last month.

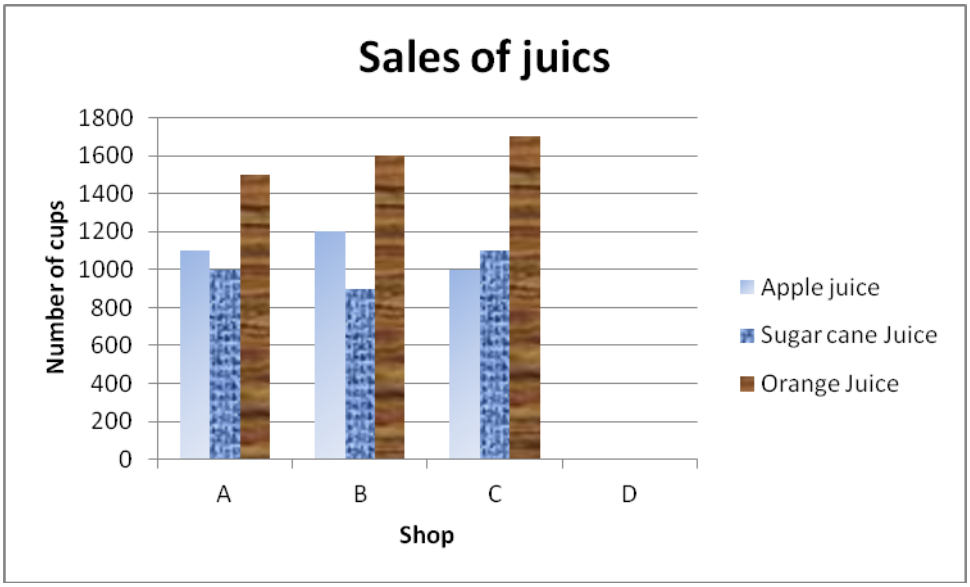
(a) Among the three juice shops, which shop sold the greatest number of cups of juice? How many cups altogether were sold? (Give the answer only) (2 marks)

(b) The table below shows the price of juice.

Type of Juice	Apple Juice	Sugar cane Juice	Orange Juice
Price (per cup)	$15	$10	$12

How much did Shop A get from selling the juice last month? (4 marks)

(c) Last month, Shop D sold 1600 cups of apple juice, 1300 cups of sugar cane juice and 1100 cups of orange juice. Draw the bars representing the sales of Shop D on the below diagram.



36. In a mathematics game, the game was divided into three rounds. The scoring of the game is as follows:

Round I	Award 10 marks for each correct answer Marks not deducted for wrong answer or saying 'Pass'
Round II	Award 20 marks for each correct answer Marks not deducted for wrong answer or saying 'Pass'
Round III	Award 40 marks for each correct answer Deduct 20 marks for each wrong answer Marks not deducted for saying 'Pass'

(a) The table below shows the scores of Class 6B in Round I and Round II. What was the score of Class 6B in each round? (Give the answer only and express the answer for Round I in terms of x)

	Number of questions correct
Round I	x
Round II	7

(2 marks)

(b) After the two rounds, Class 6B got 220 marks. How many correct answers did Class 6B get in Round I? (Use equation to solve the problem and show your working) (4 marks)

(c) There were 20 questions in Round III. Class 6B got 14 questions correct and 3 questions wrong. After the three rounds, how many marks did Class 6B get altogether? (Give the answer only) (2 marks)

End of Test Paper

Answer

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

31. (a) 2hrs 50 mins

(b) $30\times 2+18\times 2=\$96$

32. The selling price for each pack is

$\$57.6\div 16$

$=\$3.6$

The original price for each pack is

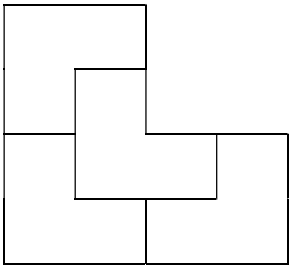
$\$3.6\div 0.8$

$=\$4.5$

33. (a) 54 packets

(b) He earns $40.5\times\$108.4=\$4390.2$

34. (a)

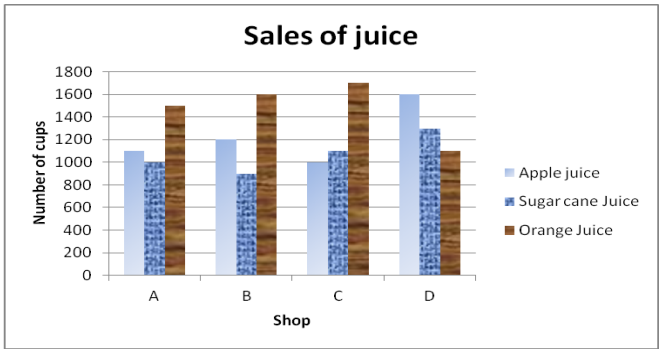


(a) The area is $30\times 30\times\frac{3}{4}\times\frac{1}{4}=168\frac{3}{4}m^2$

35. (a) C，14700 cups

(b) The income is $\$15\times 1100+\$10\times 1000+\$12\times 1500=\$44500$

(c)



36. (a) $10x + 140$

(b) $10x + 140 = 220$

$x = 8$

(c) $14 \times 40 - 3 \times 20 + 220 = 720$