METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

END-OF-YEAR EXAMINATION 2019
PRIMARY 5
MATHEMATICS

PAPER 1
BOOKLET A

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.
The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 5. _____

Date: 24 October 2019

/20

This booklet consists of 7 printed pages including this page.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

---

1 Find the value of $36 - 3 \times 9 + 12 \div 3$.

(1) 7

(2) 13

(3) 103

(4) 231

2 What is the missing number in the box?

$5\,714\,302 = 5\,000\,000 + \square + 10\,000 + 4000 + 300 + 2$

(1) 700

(2) 7000

(3) 70 000

(4) 700 000

3 Find the value of $1\frac{2}{3} - \frac{3}{4}$.

(1) $\frac{2}{7}$

(2) $\frac{11}{12}$

(3) $1\frac{1}{12}$

(4) $2\frac{5}{12}$

4 Express $\frac{5}{8}$ as a decimal. Round your answer to 2 decimal places.

(1) 0.60

(2) 0.62

(3) 0.63

(4) 1.60

5 Express 3 km 50 m in kilometres.

(1) 0.35 km

(2) 3.05 km

(3) 3.50 km

(4) 3.005 km

6 Express 0.64 as a percentage.

(1) 0.64%

(2) 6.4%

(3) 64%

(4) 640%

7 Peter bought a printer which cost $500 before GST. He had to pay an additional 7% GST. How much was the GST?

(1) $7

(2) $35

(3) $350

(4) $535

(Go on to the next page)

8 There are 42 beads. 24 of the beads are red and the rest are blue. What is the ratio of the number of red beads to the number of blue beads?

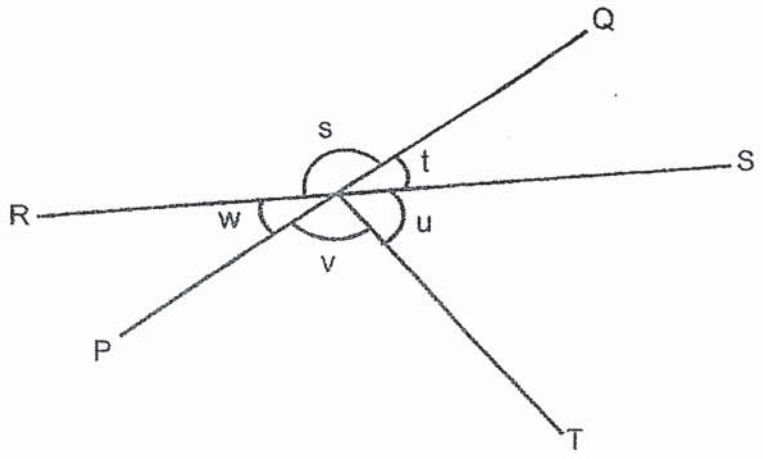
(1) 3 : 4

(2) 3 : 7

(3) 4 : 3

(4) 4 : 7

9 In the figure below, PQ and RS are straight lines.
Which of the following about the figure is **false**?



(1) $\angle w = \angle t$

(2) $\angle s = \angle v$

(3) $\angle v + \angle u = \angle s$

(4) $\angle s + \angle t = 180°$

10 The number of muffins sold in Starlight Cafe last year, when rounded to the nearest ten thousand, is 320 000. Which of the following is most likely to be the number of muffins sold?

(1) 310 964

(2) 314 798

(3) 323 564

(4) 326 789

11 A rectangular tank measures 20 cm by 15 cm by 5 cm. It is $\frac{3}{5}$-filled with water. What is the volume of the water in the tank?

(1) 300 cm^3

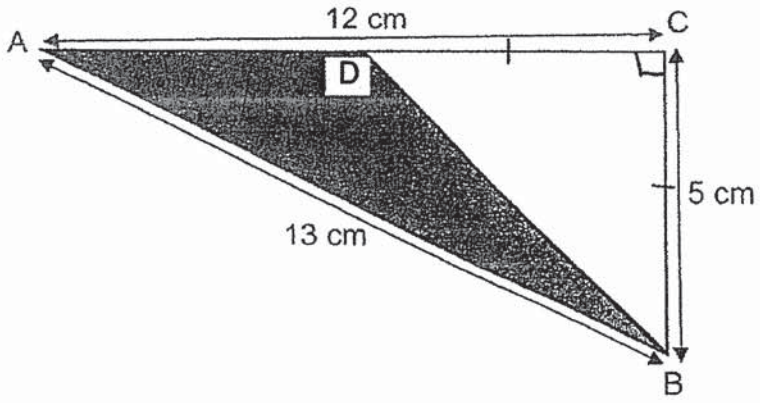
(2) 600 cm^3

(3) 900 cm^3

(4) 1500 cm^3

(Go on to the next page)

12 In the figure below, BC = CD and ADC is a straight line. Find the area of triangle ABD.



(1) 12.5 cm^2

(2) 17.5 cm^2

(3) 30.0 cm^2

(4) 32.5 cm^2

13 Mary received \$200. She spent $\frac{4}{5}$ of it over 5 days. She spent the same amount of money each day. How much did she spend each day?

(1) \$32

(2) \$40

(3) \$80

(4) \$160

14 A shop had 104 mobile phones for sale. It sold 32 of them in the morning and $\frac{5}{8}$ of the remainder in the afternoon. How many mobile phones were not sold?

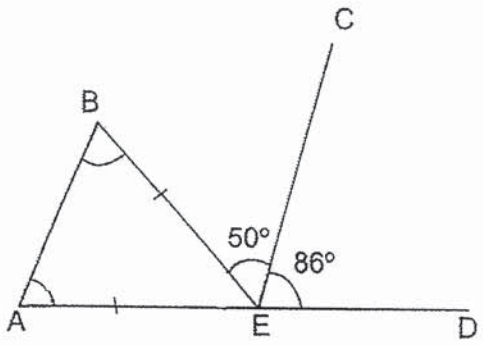
(1) 27

(2) 39

(3) 45

(4) 64

15 In the figure below, ABE is an isosceles triangle, $\angle BEC = 50°$ and $\angle CED = 86°$. AED is a straight line. Find $\angle ABE$.



(1) 22°

(2) 44°

(3) 50°

(4) 68°

METHODIST GIRLS' SCHOOL (PRIMARY)

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END-OF-YEAR EXAMINATION 2019
PRIMARY 5
MATHEMATICS

PAPER 1
BOOKLET B

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 5. ____

Date: 24 October 2019

Parent's Signature: _____

Paper 1 Booklet A	**/ 20**
Paper 1 Booklet B	**/ 25**
Paper 2	**/ 55**
TOTAL	**/ 100**

This booklet consists of 8 printed pages including this page.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not write in this space

16 Round 79 509 to the nearest thousand.

Ans: _____

17 $438 \times 6 = 238 \times 6 + \square \times 6$

Ans: _____

18 What is 60 kg 2 g in grams?

Ans: _____ g

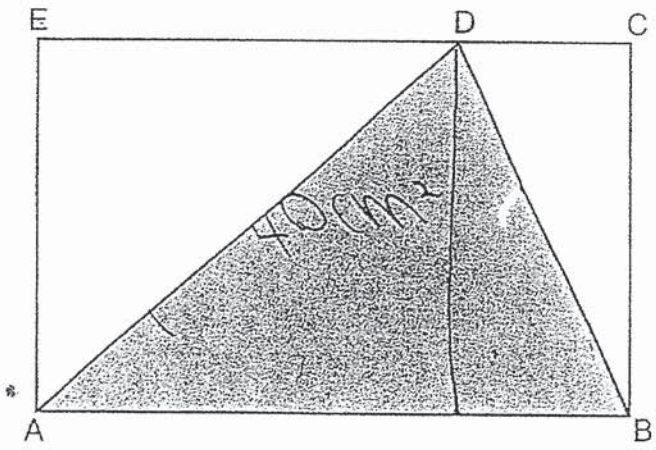
(Go on to the next page)

19 A baker sold 540 tarts. 35% of them were peach tarts and the rest were strawberry tarts. How many strawberry tarts did the baker sell?

Do not write in this space

Ans: _____

20 ABCE is a rectangle and ABD is a triangle.
The area of rectangle ABCE is 40 cm^2.
What is the area of triangle ABD?



Ans: _____ cm^2

(Go on to the next page)

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Do not write in this space

21 After spending $\frac{3}{10}$ of his money on a computer game, Dylan had \$84 left. How much did the game cost?

Ans: \$ _____

22 Joseph saved \$5000 in a bank. The interest rate is 3% per year. How much interest did he receive at the end of one year?

Ans: \$ _____

23 There are 40 pupils in a class. 15 pupils are in the Art Club, 17 pupils are in the Science Club and the remaining pupils are in the Dance Club. What percentage of the pupils are in the Dance Club?

Do not write in this space

Ans: _____ %

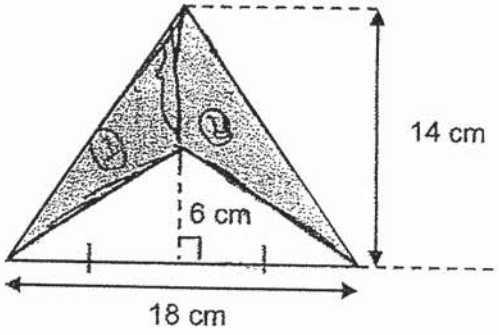
24 The ratio of the amount of money that Niki had to the amount of money that Ryan had was 3 : 5. Ryan had $75. How much did Niki have?

Ans: $ _____

(Go on to the next page)

Do not write in this space

25 Find the area of the shaded part in the figure shown below.



Ans: _____ cm^2

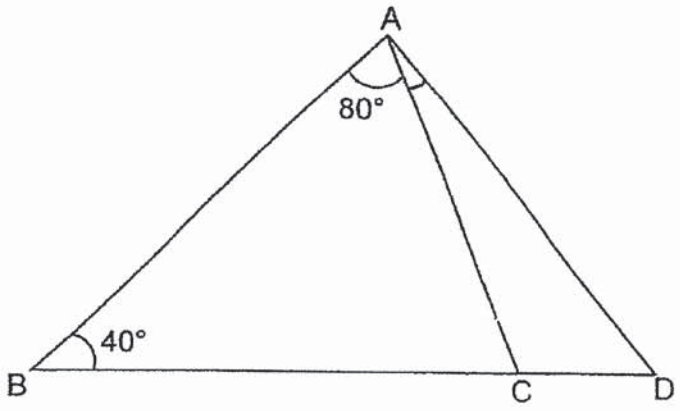
26 The average height of 5 boys was 1.42 m. One of the boys, whose height was 1.3 m, left the group.
What was the average height of the remaining boys?

Ans: _____ m

(Go on to the next page)

27 $\angle ACB$ is three times the size of $\angle CAD$. Find $\angle CAD$.

Do not write in this space



Ans: _____ °

28 The following table shows the time taken by 4 participants to complete the Math Olympiad test in a competition. Some of the recorded data are covered by an ink patch.

Name	Time taken in minutes (to the nearest whole number)
Anna	6
Beth	8
Carine	9
Lai Quan	86

The average time taken by the 4 participants was 82 minutes. Carine took 39 min more than Anna. What was the time taken by Beth to complete the test?

Ans: _____

(Go on to the next page)

Do not write in this space

29 A baker used 0.12 kg of sugar to bake a butter cake. He used 3 times as much sugar to bake a chocolate cake. How much sugar is needed for 5 chocolate cakes?

Ans: _____ kg

30 A rectangular tank measuring 60 cm by 50 cm by 15 cm was empty at first. Water flowed from a tap into the tank at a rate of 5ℓ per min. How long would it take to fill the tank completely?

Ans: _____ min

END OF PAPER

METHODIST GIRLS' SCHOOL (PRIMARY)

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END-OF-YEAR EXAMINATION 2019
PRIMARY 5
MATHEMATICS

PAPER 2

Duration: 1h 30 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of an approved calculator is expected, where appropriate.

Name: _____ ( )

Class: Primary 5._____

Date: 24 October 2019

/ 55

Parent's Signature: _____

This booklet consists of **15** printed pages including this page.

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1. Norman spent $6499 on a television and a dining set. The television cost $199 more than the dining set. How much did the dining set cost?

Ans: $ _____

2.

First 6 curry puffs	$1 each
Additional curry puff	80 cents each

Jack has $50. What is the greatest number of curry puffs that he can buy?

Ans: _____

3 A piece of wrapping paper is 50 cm long and 25 cm wide. 200 cm^2 of the wrapping paper is used to wrap a present. What percentage of the wrapping paper is used to wrap the present?

Do not write in this space

Ans: _____ %

4 Calvin, Victor and Hassan shared a box of stickers in the ratio 5 : 9 : 3. Victor had 24 stickers more than Calvin.
How many stickers did the three boys share altogether?

Ans: _____

(Go on to the next page)

5 Leo took three mathematics tests. The average score of the three tests was 86. His lowest score was more than 80.

Each statement below is either true, false or not possible to tell from the information given above. For each statement, put a tick (✓) in the correct column.

Do not write in this space

Statement	True	False	Not possible to tell
(a) Leo's highest score was 90.			
(b) Leo scored 88 and 91 for two of his tests.			

(Go on to the next page)

For questions **6** to **17**, show your working clearly and write your answers in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

Do not write in this space

6 Alice read 24 pages of a story book every day while Betty read 16 pages of the same story book every day. Betty started reading the book on Monday, 2 days ahead of Alice. On which day would both of them be on the same page?

Ans: _____ [3]

(Go on to the next page)

7 Mrs Raja had 5 ℓ of paint. She poured $\frac{3}{10}$ of it into a pail. She used the paint in the pail to paint the storeroom. After painting the storeroom, she had $\frac{1}{5}\ \ell$ of paint left in the pail. How much paint did she use to paint the storeroom?

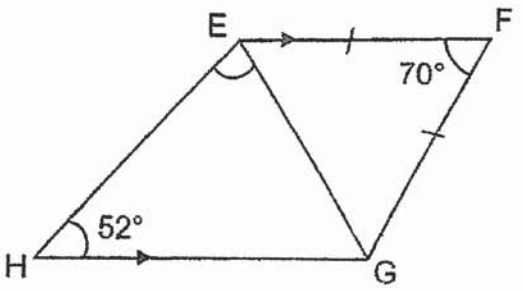
Do not write in this space

Ans: _____ [3]

(Go on to the next page)

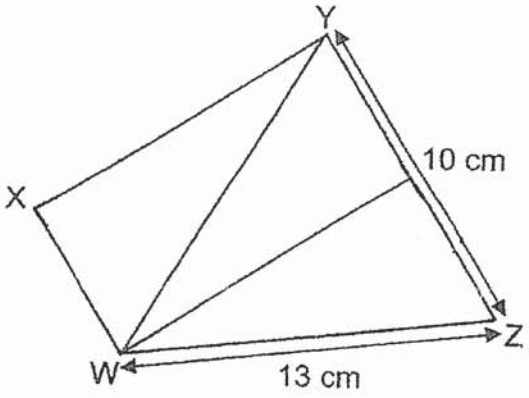
Do not write in this space

8 In the figure below, EFGH is a trapezium with EF // HG and EF=FG. $\angle EFG = 70°$ and $\angle EHG = 52°$. Find $\angle HEG$.



Ans: _____ [3]

9 Rebecca cut out three identical right-angled triangles. She joined them to form figure WXYZ as shown below. The perimeter of the figure WXYZ is 40 cm, YZ = 10 cm and WZ = 13 cm. Find the area of figure WXYZ.



Ans: _____ [3]

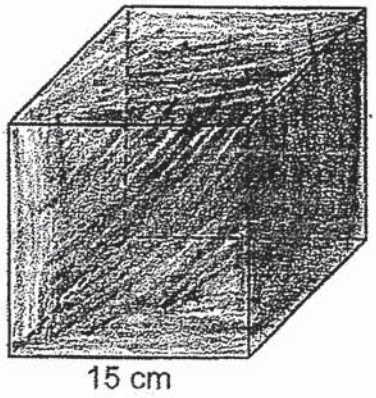
(Go on to the next page)

Do not write in this space

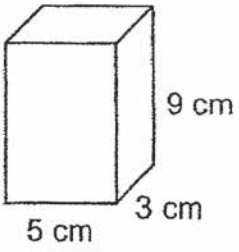
10 A cubical tank of side 15 cm was completely filled with water. All the water was then poured into some empty rectangular containers to the brim. Each rectangular container measures 5 cm by 3 cm by 9 cm.

(a) What was the volume of the cubical tank?

(b) How many rectangular containers were used?



Tank



Rectangular container

Ans: (a) _____ [1]

(b) _____ [2]

11 Siti wanted to buy 30 markers but she was short of $14. She bought 22 markers instead and had $18 left. How much money did Siti have?

Do not write in this space

Ans: _____ [4]

(Go on to the next page)

12 Mr Gopal bought a camera for $1800. He was given a discount of 20%. He had to pay 7% GST on the discounted price.

(a) How much was the discount for the camera?

(b) How much did Mr Gopal pay for the camera including GST?

Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

13 Angela made a total of 55 keychains in 5 days. Each day, she managed to make 3 more keychains than the day before. She sold all the key chains at $2.30 each.

(a) How much would Angela collect from the sale of all the key chains?

(b) How many keychains did Angela make on the last day?

Do not writ in this space

Ans: (a) _____ [1]

(b) _____ [3]

(Go on to the next page)

Do not write in this space

14 5 notebooks, 2 pencils and 2 markers cost $10.

1 pencil and 1 marker cost $2. 1 notebook and 1 pencil cost $1.75.

(a) How much did 1 notebook cost?

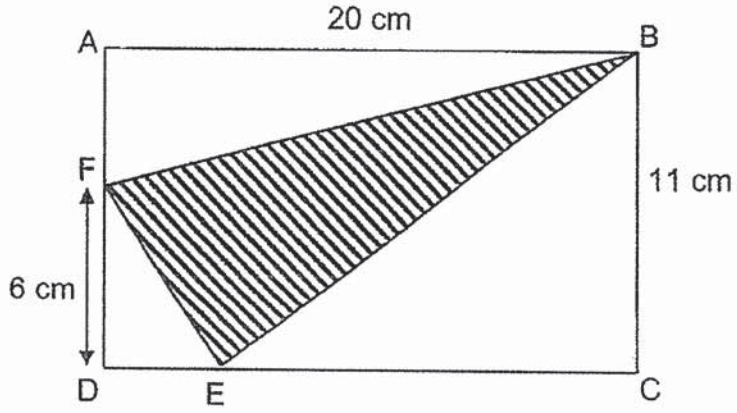
(b) How much did 1 marker cost?

Ans: (a) _____ [2]

_____ [2]

Do not write in this space

15 ABCD is a rectangle. The length of EC is 4 times the length of DE.
Find the area of triangle BEF.



Ans: _____ [5]

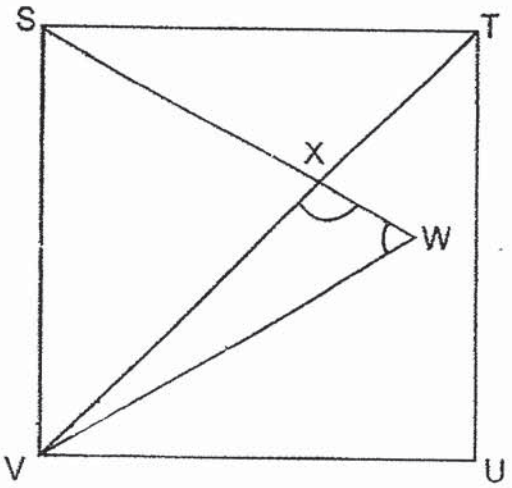
(Go on to the next page)

16 In the figure below, STUV is a square. SWV is an equilateral triangle and TXV is a straight line.

(a) Find ∠WST.

(b) Find ∠VXW.

Do not write in this space



Ans: (a) _____ [2]

(b) _____ [2]

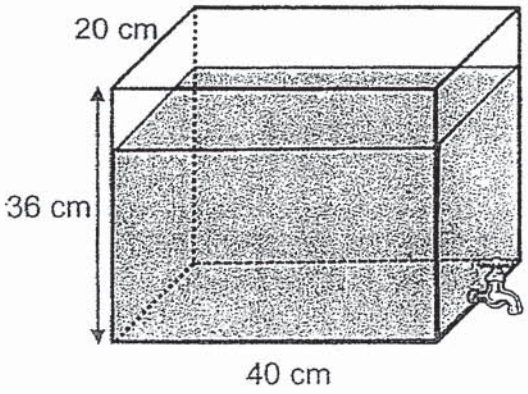
(Go on to the next page)

Do not write in this space

17 A rectangular tank 40 cm long, 20 cm wide and 36 cm high was $\frac{5}{6}$-filled with water.

(a) What was the volume of the water in the tank in litres?

(b) A tap was used to drain the water from the tank at a rate of 4 ℓ per minute. The tap was turned off when the tank was $\frac{1}{3}$-filled with water. How long did it take to drain the water?



Ans: (a) _____ [2]

(b) _____ [3]

End of Paper

ANSWER KEY

YEAR : 2019
LEVEL : PRIMARY 5
SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)
SUBJECT : MATHEMATICS
TERM : SA2

PAPER ONE : BOOKLET A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
2	4	2	3	2	3	2	3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
2	3	3	2	1	1	4	

PAPER ONE : BOOKLET B

Q16	80 000
Q17	200
Q18	60 002g
Q19	540 x $\frac{35}{100}$ = 189 540 – 189 = 351
Q20	20cm^2
Q21	\$84 ÷ 7 = \$12 12 x 3 =\$36
Q22	\$5000 x $\frac{3}{100}$ = \$150
Q23	40 – 15 – 17 = 8 $\frac{8}{40} \times 100\% = 20\%$
Q24	5u → \$75 3u → \$75 ÷ 5 x 3 = \$45
Q25	14 – 6 = 8 $\frac{1}{2}$: 18 = $72cm^2$
Q26	1.42 x 5 = 7.1 7.10 – 1.30 = 5.80 5.80 ÷ 4 = 1.45
Q27	<ACB = 180° – 40° – 80° = 60° <CAD = 60° ÷ 3 = 20°
Q28	Anna → 60 (99 – 39) Carine → 99 (60 + 39) Total minutes → 82 x 4 = 328 Beth → 328 – 60 – 99 – 86 = 83

Q29	0.12 x 3 = 0.36 0.36 x 5 = 1.8kg
Q30	60 x 50 x 15 = 45 000 45000ml = 45L 45 ÷ 5 = 9min

PAPER B:

Q1	$6 499 – $199 = $6 300 $6 300 ÷ 2 = $3 150
Q2	6 x $1 = $6 $50 – $6 = $44 $44 ÷ $0.80 = 55 55 + 6 = 61
Q3	50 x 25 = 1250 200 ÷ 1250 = 0.16 Ans : 0.16 ≈ 16%
Q4	C : V : H → 5 : 9 : 3 4u → 24 1u → 24 ÷ 4 = 6 Altogether → 17 x 6 = 102
Q5	(a) Not possible to tell (b) False
Q6	<table><tr><td></td><td>Mon</td><td>Tue</td><td>Wed</td><td>Thu</td><td>Fri</td><td>Sat</td></tr><tr><td>Betty</td><td>16</td><td>32</td><td>48</td><td>64</td><td>80</td><td>96</td></tr><tr><td>Alice</td><td></td><td></td><td>24</td><td>48</td><td>72</td><td>96</td></tr></table> Answer : Saturday
Q7	5L 5L ÷ 10 = 0.5L 3u → 0.5L x 3 =1.5L
Q8	<FEG = (180 – 70) ÷ 2 = 55 <HEG = 180 – 52 – 55 = 73
Q9	Length of XY → 40 – 10 – 13 – 5 = 12 Each Triangle → $\frac{1}{2}$ x 5 x 12 = 30cm^2 3 Triangles → 30 x 3 = 90cm^2
Q10	(a) 15 x 15 x 15 = 3375cm^3 (b) 5 x 3 x 9 = 135cm^3 3375 ÷ 135 = 25

<table>
<tr><td>Q11</td><td>8 markers → 14 + 18 = 32
1 marker → 32 ÷ 8 = $4
$4 x 22 + $18 = $106</td></tr>
<tr><td>Q12</td><td>(a) $1 800 ÷ 100 x 20 = $360
(b) $1 800 - $360 = $1 440
$1 440 ÷ 100 x 7 = $100.80
$1 440 + $100.80 = $1540.80</td></tr>
<tr><td>Q13</td><td>(a) 55 x $2.30 = $126.50
(b)
<table>
<tr><td>Day 1</td><td>[]</td></tr>
<tr><td>Day 2</td><td>[] +3</td></tr>
<tr><td>Day 3</td><td>[] + 3 +3</td></tr>
<tr><td>Day 4</td><td>[] + 3 +3 + 3</td></tr>
<tr><td>Day 5</td><td>[] + 3 +3 + 3 + 3</td></tr>
</table>
55 – 30 = 25
[] → 25 ÷ 5 = 5
5 + 3 + 3 +3 +3 = 17 {ANS}</td></tr>
<tr><td>Q14a</td><td>[1p + 1m = $2] x 2
[2p + 2m = $4]
[5n + 2p + 2m = $10]
5n → $10 – $4 = $6
1n → $6 ÷ 5 = $1.20</td></tr>
<tr><td>Q14b</td><td>1p → $1.75 - $1.20 = $0.55
1m → $2.00 - $0.55 = $1.45</td></tr>
<tr><td>Q15</td><td>DE → 4cm ; EC → 16cm ; AF → 5cm
DEF → $\frac{1}{2}$ x 4 x 6 = 12
ABF → $\frac{1}{2}$ x 5 x 20 = 50
BCD → $\frac{1}{2}$ x 11 x 16 = 88
unshaded → 12 + 50 + 88 = 150
Total Area → 20 x 11 = 220
Shaded area → 220 – 150 = 70cm^2</td></tr>
<tr><td>Q16a</td><td>< WST = 90 – 60 = 30</td></tr>
<tr><td>Q16b</td><td>< WVX = 45 – 30 = 15
< VXW = 180 – 60 – 15 = 105</td></tr>
<tr><td></td><td></td></tr>
</table>

Q17a	$36 \times \frac{5}{6} = 30$ $30 \times 20 \times 40 = 24000cm^3$ $24000cm^3 = 24000ml = 24L$
Q17b	$36 \times \frac{1}{3} = 12$ $12 \times 20 \times 40 = 9600cm^3$ $9600cm^3 = 9600ml = 9.6L$ $24L - 9.6L = 14.4L$ $14.4L \div 4 = 3.6$ minutes