NANYANG PRIMARY SCHOOL

SECOND SEMESTRAL EXAMINATION 2014

PRIMARY 5

MATHEMATICS

PAPER 1

DURATION: 50 MINUTES

Booklet A	**/ 20**
Booklet B	**/ 20**

Paper 1 Total: / 40

Name: _____ ( )

Class: Primary 5 ( )

Date: 30 October 2014

Parent's Signature: _____

Any query on marks awarded should be raised by 7 November 2014. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

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PAPER 1 (BOOKLET A)

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 oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

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1 Round off 291 548 to the nearest thousand.

(1) 291 000

(2) 291 500

(3) 292 000

(4) 300 000

2 Find the value of $\frac{1}{3} + \frac{3}{5}$

(1) $\frac{4}{8}$

(2) $\frac{3}{15}$

(3) $\frac{4}{15}$

(4) $\frac{14}{15}$

3 Find the missing number in the box.

$$\frac{2}{9} \div 4 = \square$$

(1) $\frac{1}{18}$

(2) $\frac{1}{9}$

(3) $\frac{8}{9}$

(4) $1\frac{1}{18}$

4 Find the value of $1.7 \times 300 \div 1000$.

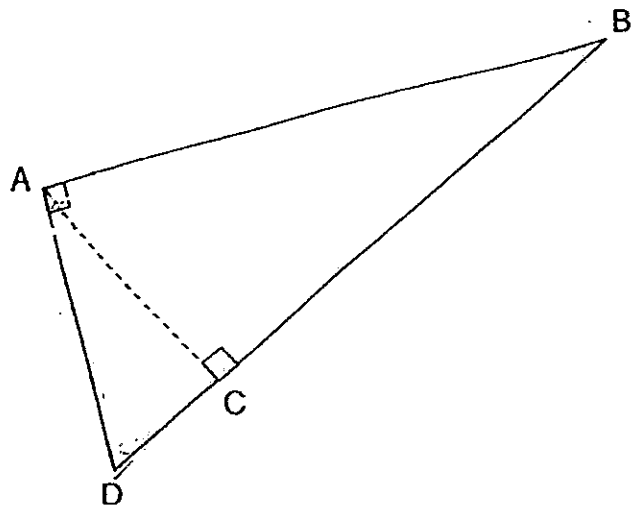
(1) 0.0501

(2) 0.051

(3) 0.501

(4) 0.51

5 ABD is a triangle. Given that the height of triangle ABD is AD, find its corresponding base.



(1) AB

(2) AC

(3) BC

(4) BD

6 Which one of the following ratios is **NOT** equivalent to 8 : 28?

(1) 4 : 14

(2) 6 : 26

(3) 12 : 42

(4) 20 : 70

7 A cuboid has a square base of side 5 cm and a height of 6 cm. Find its volume.

(1) 30 cm^3

(2) 125 cm^3

(3) 150 cm^3

(4) 180 cm^3

8 Express 2450 cm^3 in litres.

(1) 0.245 *l*

(2) 2.45 *l*

(3) 24.5 *l*

(4) 245 *l*

9 A printing machine can print 480 books in 10 days. Each book has 1000 pages. At this rate, how many pages can it print in one day?

(1) 480

(2) 4800

(3) 48 000

(4) 480 000

10 The usual price of a laptop was \$2400. During a sale, Michelle bought it at a discount of 15%. How much was the discount?

(1) \$144

(2) \$360

(3) \$2040

(4) \$2760

11 Arrange the following fractions from the biggest to the smallest:

$$\frac{9}{7},\quad 1\frac{2}{5},\quad \frac{5}{3},\quad \frac{11}{9}$$

(1) $\frac{5}{3},\quad 1\frac{2}{5},\quad \frac{9}{7},\quad \frac{11}{9}$

(2) $1\frac{2}{5},\quad \frac{5}{3},\quad \frac{9}{7},\quad \frac{11}{9}$

(3) $\frac{9}{7},\quad \frac{11}{9},\quad 1\frac{2}{5},\quad \frac{5}{3}$

(4) $\frac{11}{9},\quad \frac{9}{7},\quad 1\frac{2}{5},\quad \frac{5}{3}$

12 Find the average of these numbers.

15.3, 12.6, 13.1, 0, 15

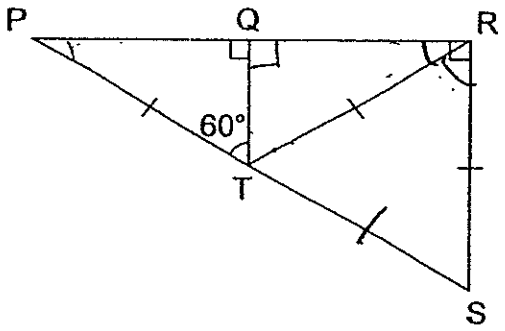
(1) 6.3

(2) 8.5

(3) 11.2

(4) 14

13 In the figure below, PRS and QRT are triangles. PT = RT = RS and $\angle PTQ = 60°$. Identify and name the equilateral triangle.



(1) PQT

(2) PRT

(3) RST

(4) PRS

14 A rectangular box, 5 cm long and 6 cm wide, has a volume of 300 cm^3. Find the maximum number of 2-cm cubes that can be put into the box.

(1) 30

(2) 37

(3) 38

(4) 39

15 Find the missing number in the number pattern below.

3, 6, 5, 10, 9, ?, 15, 24

(1) 8

(2) 12

(3) 16

(4) 19

Name: _____ ( ) Class: Pr 5 ( )

P5 SA2 2014

PAPER 1 (BOOKLET B)

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

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16 Find the value of $(15 + 24 \div 3 \times 2) - 4 \times 3$.

Ans: _____

---

17 Find the value of $\frac{5}{6} \times \frac{3}{8}$.

Give your answer as a fraction in the simplest form.

Ans: _____

---

21 A rectangular tank measures 30 cm by 40 cm by 50 cm. Find the capacity of the tank in litres.

Ans: _____

---

22 Peter spent $150 on a watch and still had $100 of his money left. What percentage of his money did he have left?

Ans: _____%

---

23 Express 3.4 as a percentage.

Ans: _____ %

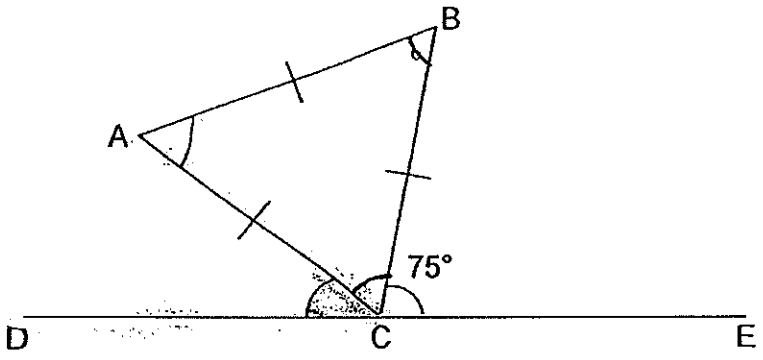
---

24 Find the value of 35% of $220.

Ans: $_____

---

25 The figure below is not drawn to scale. ABC is an equilateral triangle. DCE is a straight line and $\angle BCE = 75°$. Find $\angle ACD$.



Ans: _____

Questions **26** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

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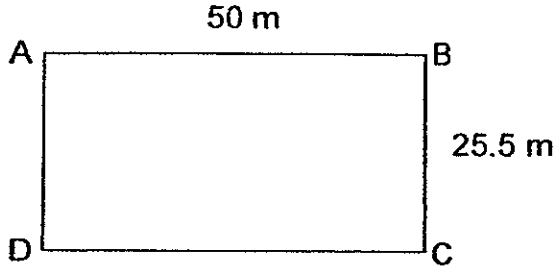
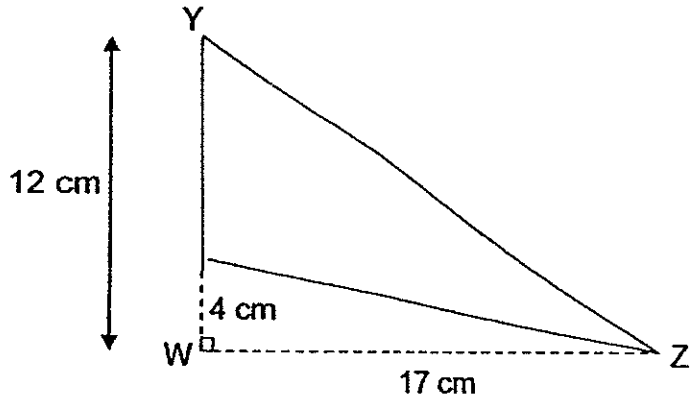
26 ABCD is a rectangle. Given that AB = 50 m and BC = 25.5 m, find the perimeter of rectangle ABCD in centimetres.



Ans: _____ cm

---

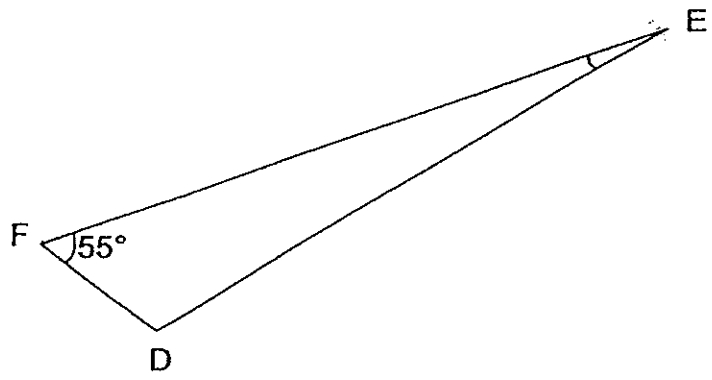
27 In the figure below, WY = 12 cm, WX = 4 cm and WZ = 17 cm. Find the area of triangle XYZ.



Ans: _____

---

28 The figure below is not drawn to scale. DEF is a triangle. $\angle FED$ is $\frac{1}{4}$ of $\angle EDF$. Find $\angle FED$.



Ans: _____

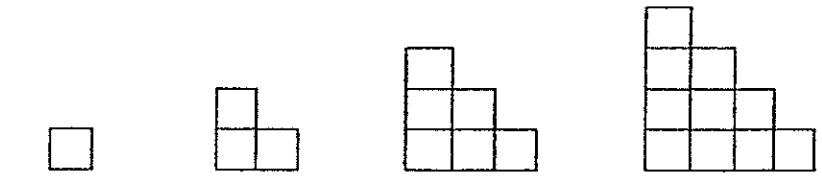
---

29 Five apples are sold for \$7.65. Find the cost of 1 apple. Give your answer correct to the nearest dollar.

Ans: \$_____

---

30 Study the patterns below.



Pattern 1 Pattern 2 Pattern 3 Pattern 4

Pattern	Number of squares
1	1
2	3
3	6
4	10
:	:
10	?

How many squares are there in pattern 10?

Ans: _____

END OF PAPER

NANYANG PRIMARY SCHOOL

SECOND SEMESTRAL EXAMINATION 2014

PRIMARY 5

MATHEMATICS

PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	**/ 60**
GRAND TOTAL	**/ 100**

Name: _____ ( )

Class: Primary 5 ( )

Date: 30 October 2014

Parent's Signature:_____

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PAPER 2

Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. Marks will be awarded for the relevant number sentences. For questions which require units, give your answers in the units stated.

(10 marks)

---

1 Sweets are sold at \$8.40 for every $1\frac{1}{2}$ kg. How many kilogrammes of sweets can be bought with \$19.60? Give your answer as a mixed number in the simplest form.

Ans: _____ kg

---

2 At a fruit stall, the ratio of the number of apples to the number of pears is 3 : 7. There are 28 more pears than apples. Find the number of apples at the fruit stall.

Ans: _____

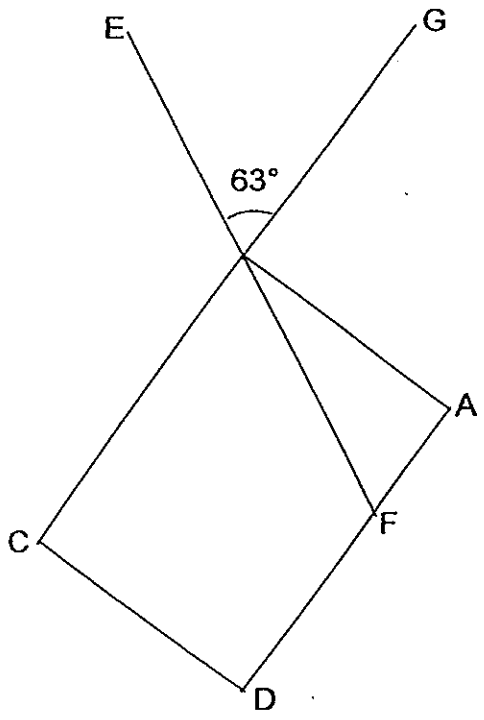
---

3 Fiona deposited \$58 400 in the bank for a year. The bank paid an interest rate of 1.35% per year. How much interest did she receive from the bank for a year?

Ans: \$_____

---

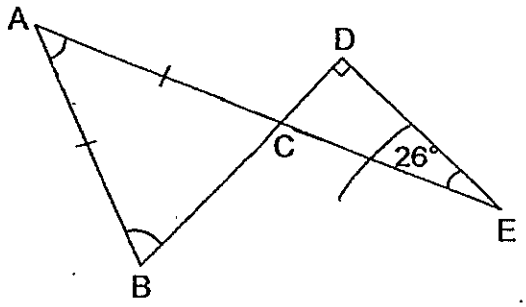
4 The figure below is not drawn to scale. EBF and CBG are straight lines. ABCD is a rectangle and $\angle EBG = 63°$. Find $\angle ABF$.



Ans: _____ °

---

5 The figure below is not drawn to scale. ABC and CDE are triangles. ACE and BCD are straight lines and AB = AC. Find $\angle BAC$.



Ans: _____

For questions **6** to **18**, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question. Marks will be awarded for the relevant number sentences.

(50 marks)

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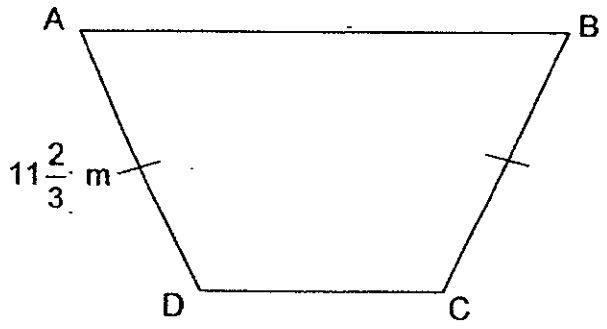
6 In the figure below, the length of AD is $11\frac{2}{3}$ m and AD = BC. The length of DC is $\frac{5}{6}$ m shorter than BC. The length of AB is $4\frac{8}{9}$ m longer than AD. Find the perimeter of the figure ABCD in metres. Give your answer as a mixed number in the simplest form.



Ans: _____ [3]

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7 The ratio of the number of Tim's marbles to the number of Sherry's marbles was 7 : 5. After Tim had given 36 marbles to Sherry, the ratio of the number of Tim's marbles to that of Sherry's became 1 : 3. How many marbles did Sherry have in the end?

Ans: _____ [3]

---

8 A rectangular tank measuring 14 cm by 18 cm by 21 cm was filled with some water. After 3.528 litres of water were poured into the tank, it became completely full. What fraction of the tank was filled before the water was poured in?

Ans: _____ [3]

---

9 In the space below, draw a trapezium ABCD in which AD is parallel to BC, AD = 8 cm, BC = 5 cm and $\angle ABC = 137°$. The line AB has been drawn for you. Measure and write down the length of CD. Label your drawing.

[2]

Ans: CD = _____ [1]

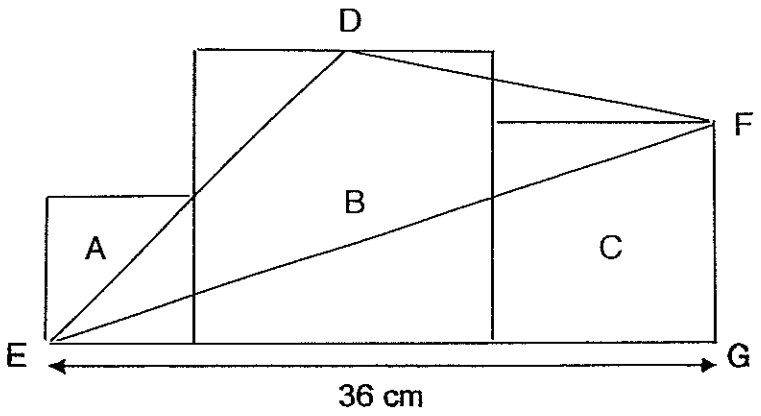
---

10 The average height of a group of boys was 175 cm. After one boy left the group, the average height of the remaining boys became 178 cm. The height of the boy who left the group was 154 cm. Find the number of boys in the group at first.

Ans: _____ [3]

---

11 The figure below is made up of three squares, A, B and C. The ratio of the length of the sides of squares, A, B and C is 2 : 4 : 3. Given that EG = 36 cm, find the area of triangle DEF.



Ans: _____ [4]

12 In January, Jean spent $840 of her monthly salary and saved the rest. In February, she increased her spending by 35% and her savings decreased by 15% as compared to January. Her monthly salary in January and February were the same. How much was her monthly salary?

Ans: _____ [4]

13 Rebecca has $16.25. She has just enough money to buy 5 apples and 8 oranges. If she buys 3 apples and 9 oranges, she would have $0.20 left. Find the difference in cost between an orange and an apple.

Ans: _____ [4]

14 In a museum tour, the ratio of the number of adults to the number of children was 1 : 4. The ratio of the number of boys to the number of girls was 3 : 5. There were thrice as many women as men.

(a) Find the ratio of the number of men to the number of boys in the museum tour.

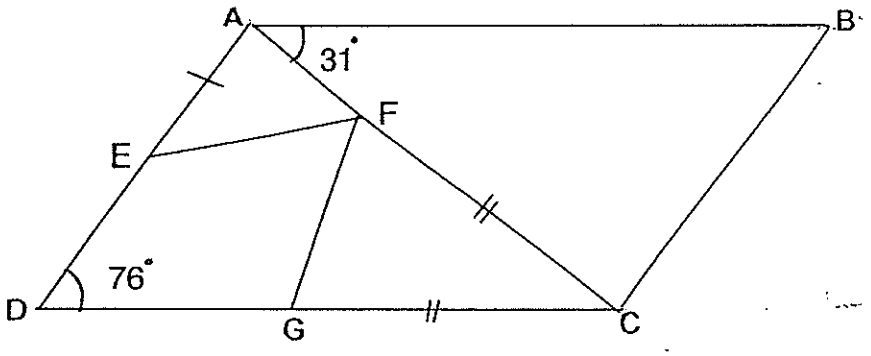
(b) Halfway through the tour, 132 girls left the museum. As result, the number of girls remaining in the tour was twice the number of women. How many children were there at the end of the tour?

Ans: (a) _____ [2]

(b) _____ [2]

15 The figure below is not drawn to scale. ABCD is a parallelogram. AFC is a straight line. AF = AE and CF = CG. $\angle ADG = 76°$ and $\angle BAC = 31°$.

(a) Find $\angle DEF$.
(b) Find $\angle EFG$.



Ans: (a) _____ [2]

(b) _____ [2]

16 Arun, Belle and Chandra had a total of 240 marbles. Arun gave 25 marbles to Belle. Belle then gave 49 marbles to Chandra. Finally Chandra gave 7 marbles to Arun. In the end, they had an equal number of marbles.

(a) How many marbles did Arun have at first?

(b) Chandra used half of his pocket money he had at first to buy all the marbles at 30 cents each. How much was his pocket money?

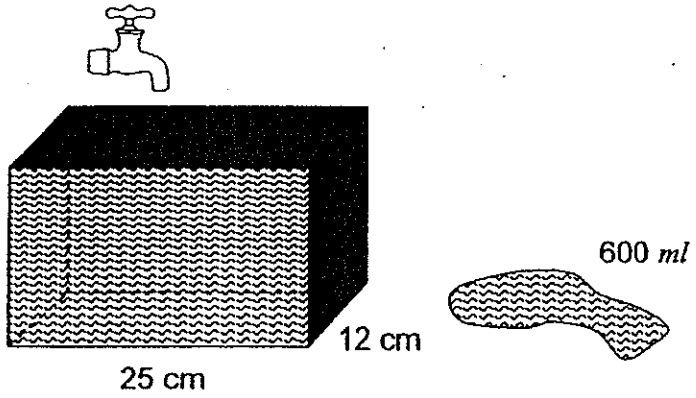
Ans: (a) _____ [3]

(b) _____ [2]

17 Terry had a rectangular tank with a base measuring 25 cm by 12 cm. He placed the empty tank under a running tap. Water from the tap flowed at a rate of 1.2 litres per minute into the tank. After the tap was turned on for 5 minutes, he observed that the tank was filled with water to its brim and 600 millilitres of water had spilled out of the tank.

(a) Find the height of the rectangular tank.

(b) Terry poured some water out from the tank to fill 3 identical pails. The height of the water in the rectangular tank decreased to 4 cm. How many litres of water did each pail contain? (1 litre = 1000 cm^3)



Ans: (a) _____ [3]

(b) _____ [2]

18 Bernadette had a sum of money. She gave $\frac{2}{7}$ of her money and another \$105 to her parents. Then she gave $\frac{4}{9}$ of the remaining money to her sister. She had $\frac{1}{3}$ of her original amount of money left. How much did she have at first?

Ans: _____ [5]

END OF PAPER

EXAM PAPER 2014
LEVEL : PRIMARY 5
SCHOOL : NANYANG
SUBJECT : MATHS
TERM : SA2

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

Q16 19

Q17 $\frac{5}{16}$

Q18 2 : 5

Q19 16

Q20 $88cm^3$

Q21 60ℓ

Q22 40%

Q23 340%

Q24 $77

Q25 45°

Q26 15100cm

Q27 $68cm^2$

Q28 25°

Q29 $2

Q30 55

Q1

$\$8.40 \div 3 \times 2 = \$5.60$

$\$19.60 \div \$5.60 = 3\frac{1}{2}$

Q2

A: P = 3:7

7-3=4

28÷4=7

7×3=21

Q3

$\$58\ 400 \times 1.35\% = \$788.40$

Q4 $90° - 63° = 27°$

Q5 $180° - 90° - 26° = 64°$

$180° - 64° - 64° = 52°$

Q6

$11\frac{2}{5} - 2\frac{5}{6} = 8\frac{5}{6}$

$11\frac{2}{5} + 4\frac{8}{9} = 16\frac{5}{9}$

$(11\frac{2}{5} \times 2) + 16\frac{5}{9} + 8\frac{5}{6} = 48\frac{13}{18}$

Q7

	Tim:	Sheng:	Total
At first	7	5	12
	↓ ×6	↓	
After	1	3	4

12÷4=3

3×3=9

9-5=4

36÷4=1

9×9=81

Q8

$14 \times 18 \times 21 = 5292$

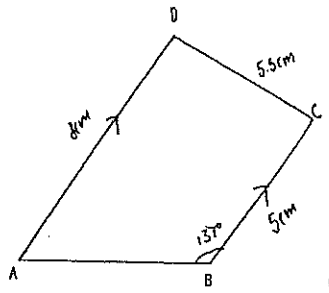
$3.528\ell = 3528ml$

$= 3628(m^3$

$5292 - 3528 = 1764$

$\frac{1764}{5292} = \frac{1}{3}$

Q9



CD = 5.5cm

Q10

178 - 175 = 3
178 - 154 = 24
24 ÷ 3 = 8

Q11

A : B : C = 2 : 9 : 3

4 - 2 = 2
4 - 3 = 1
2 + 1 + 3 = 9

1u ⟶ 36 ÷ 9 = 4
3u ⟶ 4 X 3 = 12
4u ⟶ 4 X 4 = 16
2u ⟶ 4 X 2 = 8
2 + 3 = 5
5u ⟶ 4 X 5 = 20

Area of A ⟶ 8 X 8 = 64
Area of B ⟶ 16 X 16 = 256
12 X 16 = 192
192 + 256 = 448
448 + 64 = 512
$\frac{1}{2}$ X 8 X 8 = 32
$\frac{1}{2}$ X 36 X 12 = 216
$\frac{1}{2}$ X 4 X 20 = 40
32 X 2 = 64
64 + 216 + 40 = 320
512 - 320 = 192

Q12 $840 x 35% = $295
$294 ÷ 15 x100 = $1960
$1960 + $840 = $2800

Q13

5A + 8O ⟶ $16.25
3A + 9O ⟶ $16.25 - $0.20 = $16.05
8 X 2 = 16
6 X 2 = 10
16 - 9 = 7
10 - 3 = 7
$16.25 X 2 = $32.50
7A + 7O ⟶ $32.50 - $16.05 = $16.45
1A + 1O ⟶ $16.45 ÷ 7 = $2.35
8 - 5 = 3
5A + 5O ⟶ $2.35 X 5 = $11.75
3O ⟶ $16.25 - $11.75 = $4.50
1O ⟶ $4.50 ÷ 3 = $1.50
8O ⟶ $1.50 X 8 = $12
5A ⟶ $16.25 - $12 = $4.25
1A ⟶ $4.25 ÷ 5 = $0.85
$1.50 - $0.85 = $0.65

Q14

A : C = 1 : 4

B : G = 3 : 5
= 6 : 10

A : C = 4 : 16

M : B = 1 : 6

G : W = 10 : 3

3 X 2 = 6

10 - 6 = 4

132 ÷ 4 = 33

W + M → 3 + 1 = 4 (u) 4 ÷ 1 = 4

C → 3 + 5 = 8 8 ÷ 4 = 2

6 + 10 = 16 16 ÷ 4 = 4

W : M = 3 : 1

End

Total C → 6u (B) + 6u (G) = 12u

12 X 33 = 396

Q15

180° - 76° = 104°

104° - 31° = 73°

∠BAE → 31° + 76° = 107°

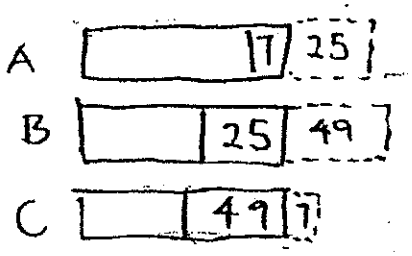
∠AEF → 107° ÷ 2 = 53.5°

∠DEF → 73° + 53.5° = 126.5°

∠CFG → (180° - 31°) ÷ 2 = 74.5°

∠EFG → 180° - 74.5° - 53.5° = 52°

Q16



(a) 240 ÷ 3 = 80
70 – 7 + 25 = 98

(b) $11.40 x 2 = $22.80

Q17 (a)

$1.2 \times 5 = 6$

$6\ell = 6000 m\ell$

$6000 - 600 = 5400$

$5400 m\ell = 5400 cm^3$

$5400 \div 25 \div 12 = 18$

(b)

$5400 \div 25 \div 12 = 18$

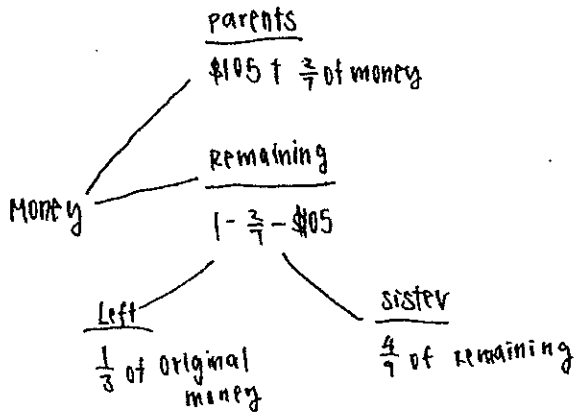
$18 - 4 = 14$

$14 \times 25 \times 12 = 4200$

$4200 \div 3 = 1400$

$1400 cm^3 = 1.4\ell$

Q18



$\$105 \div \frac{2}{7} \times 35 = \$918.75$

$1 - \frac{1}{3} - \frac{2}{7} = \frac{8}{21}$

$9 - 4 = 5$

$\frac{5}{9}$ of $R \rightarrow \frac{1}{3}$ of original

$\frac{1}{3} \div 5 \times 4 = \frac{4}{15}$

$\frac{8}{21} - \frac{4}{15} = \frac{1}{35}$