METHODIST GIRLS' SCHOOL

Founded in 1887

CONTINUAL ASSESSMENT 1 2012
PRIMARY 6
MATHEMATICS

PAPER 1
(BOOKLET A)

Total Time for Booklets A and B: 50 minutes

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 6._____

Date: 28 February 2012

This booklet consists of 6 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 oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

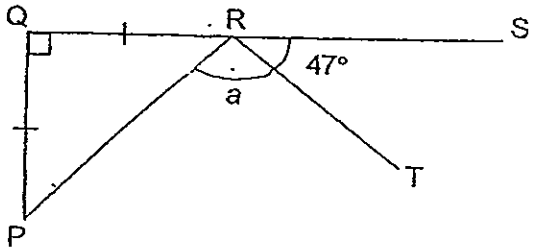
1 Mother baked y cookies. She gave 12 cookies to her neighbour and distributed the rest among her three children. Which mathematical statement below shows the correct way to calculate the number of cookies each child received?

(1) $y - 12 \div 3$
(2) $y - (12 \div 3)$
(3) $(y - 12) \div 3$
(4) $y \div 3 - 12$

2 Carol saves \$4 a week. How many weeks will she take to save \$$m$?

(1) $\frac{4}{m}$
(2) $4m$
(3) $(4 - m)$
(4) $\frac{m}{4}$

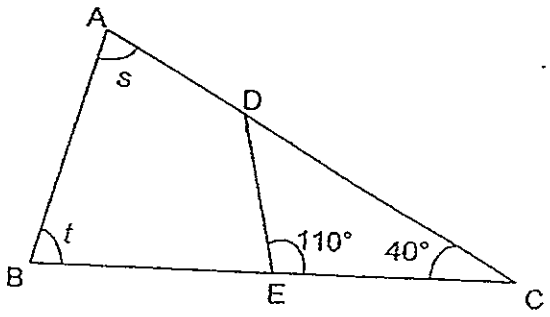
3 In the figure below, not drawn to scale, PQR is an isosceles triangle and QS is a straight line. Find the value of $\angle a$.



(1) 43°
(2) 83°
(3) 88°
(4) 98°

(Go on to the next page)

4 In the figure below, not drawn to scale, ABC is a triangle.
Find $\angle r + \angle s + \angle t$.



(1) 210°
(2) 280°
(3) 290°
(4) 320°

5 Tim had 8 identical straws.
He made an object using all 8 straws without cutting or bending any of them.
Which object did he make?

(1) Cube
(2) Square-based pyramid
(3) Triangular-based pyramid
(4) Rectangular prism

6 15 tenths + 213 hundredths = _____

(1) 0.363
(2) 1.713
(3) 3.63
(4) 22.8

(Go on to the next page)

7 John spent half of his salary.
He gave 75% of the remainder to his parents and saved the rest.
Find the ratio of the amount he spent to the amount he saved.

(1) 1 : 4
(2) 3 : 4
(3) 4 : 1
(4) 4 : 3

8 Find the smallest whole number that will give a value of 1 200 when rounded off to the nearest hundred.

(1) 1149
(2) 1150
(3) 1199
(4) 1201

9 The average of 3 consecutive numbers is 26. Find the biggest number.

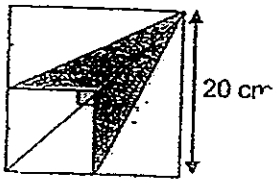
(1) 25
(2) 26
(3) 27
(4) 28

10 Which of the following has the largest value?

(1) $\frac{2}{5} \div \frac{8}{9}$
(2) $\frac{3}{8} \div \frac{3}{5}$
(3) $\frac{5}{8} \times \frac{2}{5}$
(4) $\frac{1}{2} \times \frac{3}{4}$

(Go on to the next page)

11 The length of the square below is 20 cm. Find the area of the shaded part.



(1) 100 cm^2
(2) 125 cm^2
(3) 200 cm^2
(4) 250 cm^2

12 The ratio of the number of pens that Rita has to the number of pens that Siti has is 1: 2.
The ratio of the number of pens that Tania has to the number of pens that Siti has is 5: 4.
If Siti has 20 pens how many more pens does Tania have than Rita?

(1) 12
(2) 15
(3) 20
(4) 40

13 Look at this pattern of numbers.

7 x 11 x 13 x 1 = 1 001
7 x 11 x 13 x 2 = 2 002
7 x 11 x 13 x 3 = 3 003

What is 7 x 55 x 26?

(1) 5 005
(2) 5 050
(3) 10 001
(4) 10 010

(Go on to the next page)

14 The average of 2 numbers is 30. Half of one number is twice of the other. What is the smaller number?

(1) 10
(2) 12
(3) 20
(4) 24

15 Naomi deposits $200 every month in a bank which pays 1% interest per year. How much money will she have in the bank after 1 year?

(1) $2 024
(2) $2 400
(3) $2 424
(4) $2 600

End of Booklet A

METHODIST GIRLS' SCHOOL

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CONTINUAL ASSESSMENT 1 2012
PRIMARY 6
MATHEMATICS

PAPER 1
(BOOKLET B)

Total Time for Booklets A and B: 50 minutes

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 6._____

Date: 28 February 2012

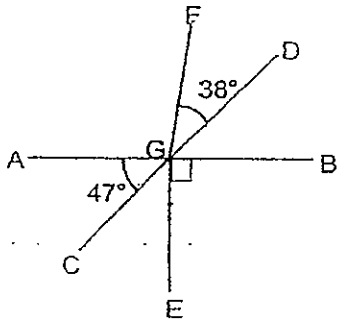
Paper 1 Booklet A	**/ 20**
Paper 1 Booklet B	**/ 20**
Paper 2	**/ 60**
TOTAL	**/ 100**

This booklet consists of 9 printed pages including this page.

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.

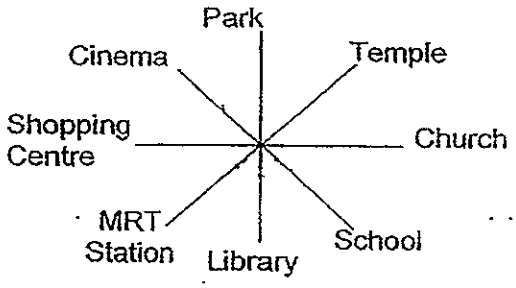
(10 marks)

16 In this figure, not drawn to scale, AB and CD are straight lines.
Find the sum of $\angle$ AGF and $\angle$ CGE.



Ans: _____

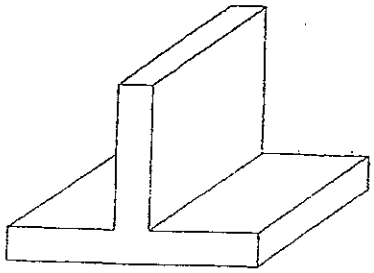
17 Gregory is facing the cinema. If he turns 225° anti-clockwise, where will he be facing?



Ans: _____

(Go on to the next page)

18 How many faces are there in the solid below?



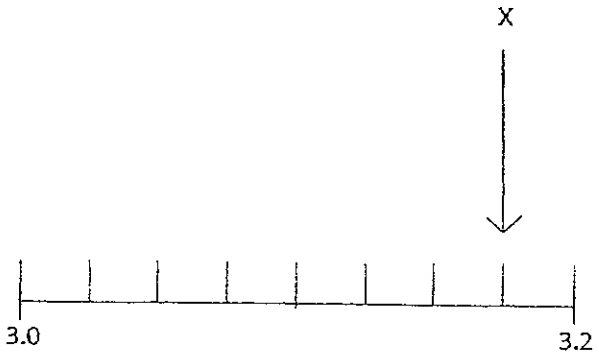
Ans: _____

19 Carl and Mel together drank $\frac{4}{5}$ of a bottle of apple juice.
Carl drank half as much as Mel.
What fraction of the bottle of juice did Carl drink?

Ans: _____

(Go on to the next page)

20 What is the decimal represented by the letter X?



Ans: _____

21 Express $2\frac{1}{2}$ hours as a ratio of 24 minutes in its simplest form.

Ans: _____

(Go on to the next page)

22 Max uses the four letters Q, R, S and T to form a pattern. The first 10 letters are shown below. Which letter is in the 143rd position?

Q, R, S, T, Q, R, S, T, Q, R .

Ans: _____

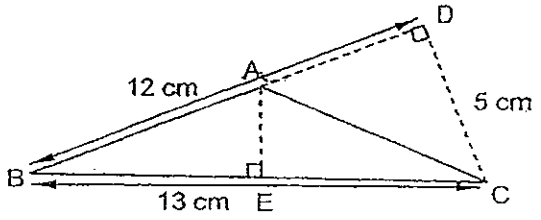
23 What is the missing number in the box?

$13 \times 9 + \square \times 9 + 27 = 30 \times 9 - 9$

Ans: _____

(Go on to the next page)

24 In the figure below, BD is a straight line and AD = CD.
What is the area of triangle ABC?



Ans: _____ cm^2

25 In a class of 40 pupils, 20% of the pupils do not wear spectacles.
How many more pupils wear spectacles than those who do not wear spectacles?

Ans: _____

(Go on to the next page)

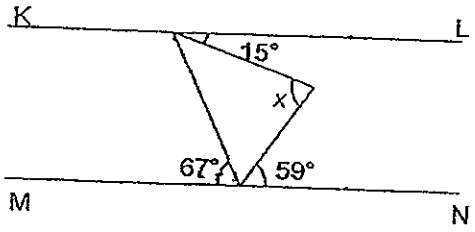
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

26 Fiona is 3 kg lighter than Eliza and 7 kg heavier than Tina.
If Fiona is f kg, find the total weight of the 3 girls.

Ans: _____ kg

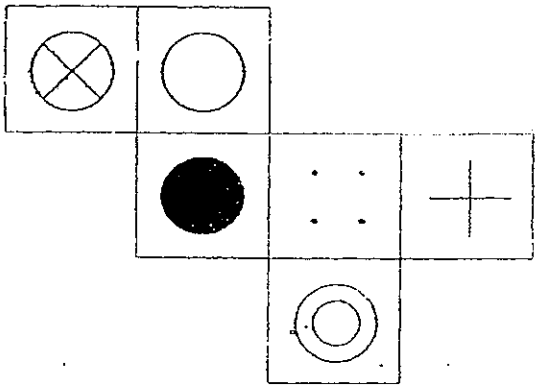
27 In the figure below, not drawn to scale, KL and MN are parallel lines.
Find $\angle x$.



Ans: _____

(Go on to the next page)

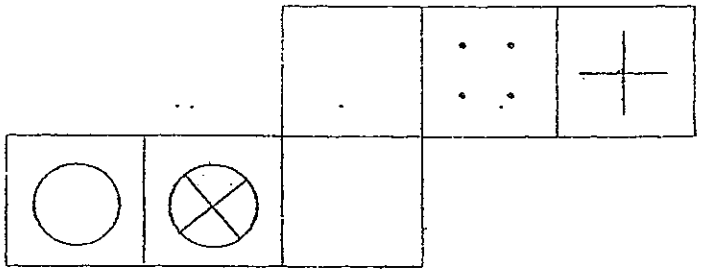
28 The net below forms a cube.



(a) Which shape is opposite  when the net is folded to make a cube?

Ans: _____

(b) Another net of the same cube is shown below.
Fill in the symbols on the net given below.



(Go on to the next page)

29 $\frac{4}{5}$ of Jan's marbles is equal to $\frac{2}{3}$ of Sue's marbles.
What fraction of Sue's marbles must be given to Jan such that both of them have the same number of marbles?

Ans: _____

30 Mr Ong earns $4 000 a month. His wife earns 15% less than him. How much do they earn altogether in one month?

Ans: $_____

End of Paper

METHODIST GIRLS' SCHOOL
Founded in 1887

CONTINUAL ASSESSMENT 1 2012
PRIMARY 6
MATHEMATICS

PAPER 2

Duration: 1 h 40 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 6._____

Date: 28 February 2012

60

This booklet consists of 14 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)

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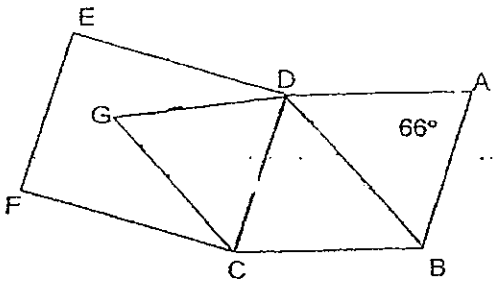
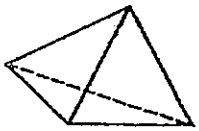
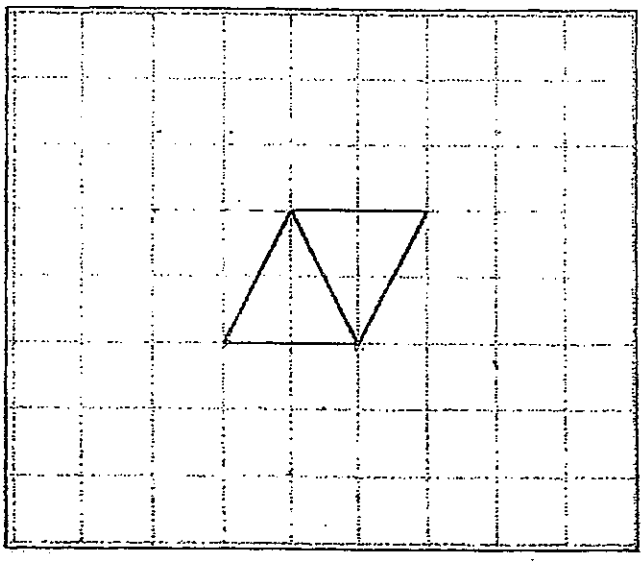
1 In the figure below, not drawn to scale, ABCD is a rhombus and CDEF is a rectangle.
BD is parallel to CG. $\angle BAD = 66°$. Find the value of $\angle DCG$.



Ans: _____ °

2 The figure below shows a pyramid consisting of four similar isosceles triangular faces. Complete the net of this pyramid within the grid provided below.



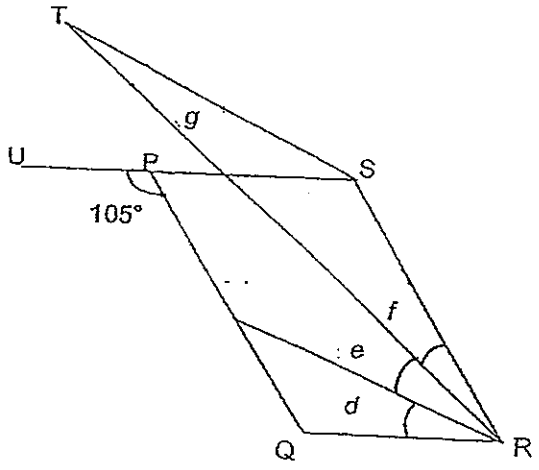


(Go on to the next page)

3 An apple cost w cents and a mango cost three times as much.
May bought 3 apples and 2 mangoes.
She gave the cashier a \$10 note and received some change.
Express the amount of change received in terms of w.

Ans: _____ cents

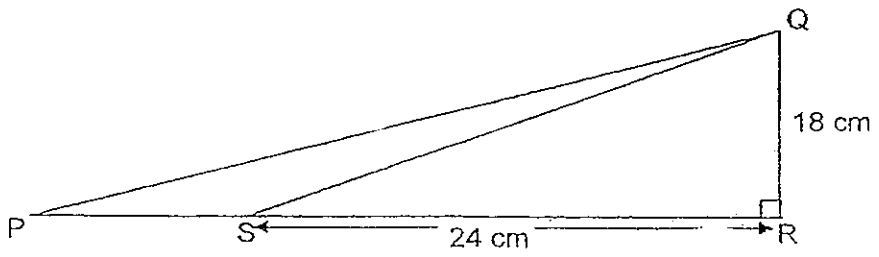
4 In the figure below, not drawn to scale, PQRS is a parallelogram and UPS is a straight line. RS = ST and $\angle d = \angle e = \angle f$.
Find the value of $\angle g$.



Ans: _____ °

(Go on to the next page)

5 The figure below is not drawn to scale. QR is 18 cm and RS is 24 cm. RS is three times as long as PS. Find the area of triangle PQR



Ans: _____ cm^2

(Go on to the next page)

For questions 6 to 18, show your working clearly 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.

(50 marks)

---

6 Two sisters, Jen and Kara, divided \$28 000 between themselves in the ratio 3 : 4. Kara kept $\frac{5}{8}$ of her share for herself and gave the rest to her mother and son in the ratio 2 : 3. How much money did Kara's son receive?

Ans: _____ [3]

7 Susan paid ~~\$59.90~~ \$59.50 for some pens and files.
She paid \$2.35 for each file and \$0.55 less for each pen.
She bought half as many files as pens. How many files did she buy?

Ans: _____ [4]

(Go on to the next page)

8 The ratio of Lisa's mass to Claire's mass is 5:4.
If Lisa loses 1 kg and Claire gains 5 kg, both of them will have the same mass.
What is Lisa's original mass?

Ans: _____ [3]

9 The ratio of the number of ducks to the number of chickens is 25 : 37.
The ratio of the number of female ducks to the number of male ducks is 4 : 9.
If there are 450 male ducks, how many chickens are there in the farm?

Ans: _____ [4]

(Go on to the next page)

10 A, B, C and D are whole numbers such that
A x B = 8, B x C = 28, C x D = 63 and B x D = 36.

Find the value of A x B x D

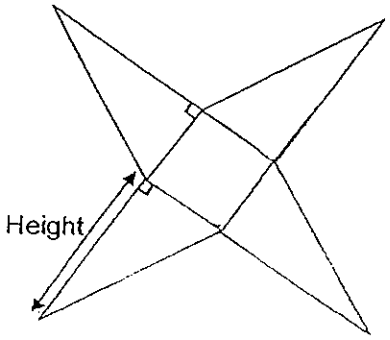
Ans: _____ [3]

11 Tom scored 78, 81, 75 and 66 marks for his first four Mathematics tests. If he wants to increase his average mark by 3, how many marks should he score for his next Mathematics test?

Ans: _____ [3]

(Go on to the next page)

12 The figure below, not drawn to scale, is made up of a square and 4 identical right-angled triangles. The perimeter of the square is 28 cm. The height of each triangle is twice its base. Find the total area of this figure.



Ans: _____ [3]

(Go on to the next page)

13 Sufen has three times as many marbles as Aidah.
Belle has twice as many marbles as Sufen.
Belle has $35w$ marbles more than Aidah.

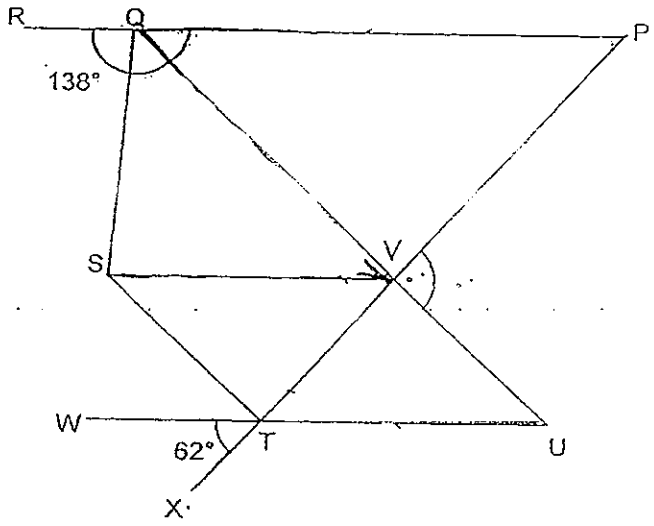
(a) How many marbles does Aidah have? Give your answer in terms of w.
(b) If $w = 3$, how many marbles do the three children have altogether?

Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

14 In the figure below, not drawn to scale, STUV is a parallelogram and QSTU is a trapezium. PR is parallel to SV and PX is a straight line. $\angle RQU = 138°$ and $\angle WTX = 62°$. Find the value of $\angle PVU$.



Ans: _____ [4]

(Go on to the next page)

15 There were $\frac{3}{5}$ as many boys as girls in a hall during recess. After recess, 18 boys and 16 girls entered the hall.
Then there were $\frac{5}{6}$ as many boys as girls.

(a) How many boys were there in the hall at first?
(b) What fraction of the total number of pupils in the hall after recess were girls? Give your answer in the simplest form.

Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)

16 Zoe, Sally and Mandy sold balloons at a funfair.

Zoe sold $\frac{1}{5}$ of the total number of balloons.

Mandy and Sally sold the rest of the balloons in the ratio 5 : 7.
If Zoe sold 24 balloons less than Mandy, how many balloons did the three girls sell altogether?

Ans: _____ [5]

(Go on to the next page)

17 Ali has five times as many paper clips as Paul and 10 more.
Natalie has one tenth of what Ali has and 4 more.
The number of paper clips that Natalie has is 3 fewer than Paul's.

(a) What is the total number of paper clips the three children have altogether?
(b) How many of Ali's paper clips must be given to Paul if both of them want the same number of paper clips?

Ans: (a) _____ [3]

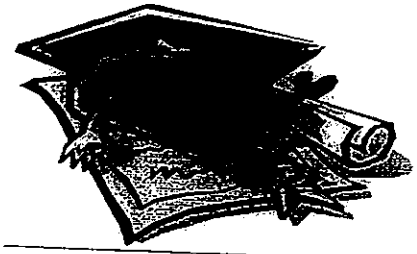
(b) _____ [2]

(Go on to the next page)

18 Susan and Kevin had a total of 45 storybooks. When their mother bought each of them 9 storybooks, Kevin had 25% more books than Susan.
Find the ratio of the number of books that Susan had at first to the number of books that Kevin has now.

Ans: _____ [4]

End of Paper



ANSWER SHEET

EXAM PAPER 2012

SCHOOL : MGS
SUBJECT : PRIMARY 6 MATHEMATICS

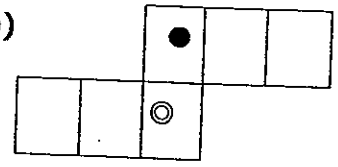
TERM : CA1

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

16)138° **17)church** **18)10** **19)4/15** **20)3.175**

21)25:4 **22)S** **23)13** **24)17.5cm$_2$** **25)24**

26)(3j – 4) **27)74°** **28)a)+ b)**

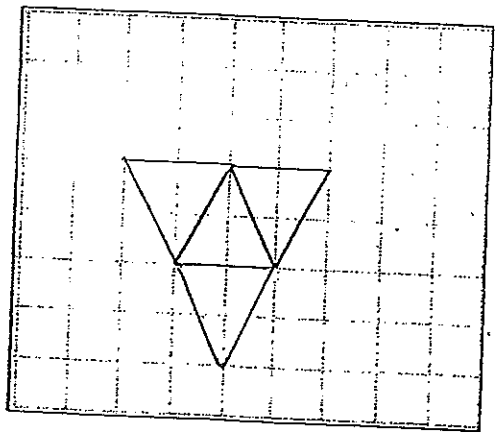


29)1/12 **30)$7400**

Paper 2

1) ∠CDB=(180° – 60°)÷2 = 57°
∠GCB=180° – 57° = 123°
∠DCG=123° – 66° = 57°
∠DCG is 57°

2)



3)9 x w = 9w
1000 − 9w
The change would be (1000 − 9w)cents

4)∠SPQ = 180° − 105° = 75°
∠f = 75° ÷3 = 25°
∠g = ∠f = 25°
∠g is 25°

5)24÷3 = 8
24 + 8 = 32
½ x 32 x 18 = 288
The area is 288cm2

6)4/7 x 28000 = 16000
5/8 x 16000 = 10000
16000 − 10000 = 600
3/5 x 6000 = $3600

7)1 pen→2.35 − 0.55 = 1.8
1.8 x 2 = 3.6
1 set→3.6 + 2.35 = 5.95
59.50÷5.95 = 10
She bought 10 files

8)5 units − 1 = 4 units + 5
5 units − 4 units = 5 + 1
1 unit→6
5 units→ 6 x 5 = 30
Lisa's original mass is 30kg

9)9 units→450
1 unit→450÷9 = 50
9 + 4 = 13
13 units→13 x 50 = 650 (ducks)
25 parts→650
1 part→650 ÷25 = 26
37 parts→26 x 37 = 962
The are 962 chickens

10)The value is 72

11)78 + 81 + 75 + 66 = 300
300÷4 = 75
75 + 3 = 78
78 x 5 = 390
390 – 300 = 90
He should score 90 marks.

12)28÷4 = 7
½ x 14 x 7 = 49
7 x 7 = 49
49 x 4 = 196
196 + 49 = 245
The area is 245cm_2

13)a)35w/5 = 7w
Aidah has (35w/5)marbles
b)35 x 3 = 105
105÷5 = 21
10 units→21 x 10 = 210
They have 210 marbles altogether

14)∠PQV = 180° – 138° = 42°
∠PVU = 42° + 62° = 104°
∠PVU is 104°

15)a)18 units + 108 = 25 units + 80
25 units + 80 = 18 units + 108
25 units – 18units = 108 – 80
7 units→28
1 unit→28÷7 = 4
3 units→ 4 x 3 = 12 (boys)
They were 12 boys at first
b)5 units→4 x 5 = 20 (girls)
20 + 16 = 36
12 + 18 = 30
30 + 36 = 66 (total)
36/66 = 6/11
The fraction is 6/11

16)2 units→24
1 unit→24 ÷2 = 12
15 units→12 x 15 = 180
They sold 180 balloons altogether.

17)a)1 unit→1 + 4 + 3 = 8
Ali→(10x8) + 10 = 90
Paul→8 x 2 = 16
Natalie→8 + 1 + 4 = 13
90 + 16 + 13 = 119
b)(90 +16) ÷2 = 53
90 − 53 = 37

18)19 : 35