Anglo-Chinese School
(Junior)

SEMESTRAL ASSESSMENT 1 (2011)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet A

Thursday **12 May 2011** **50 min**

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 15 questions in this booklet.

Answer ALL questions.

You are <u>not</u> allowed to use a calculator.

Name :_____**( )**

Class : 6.( )

Parent's Signature:_____

This question paper consists of 8 printed pages. (Inclusive of cover 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)

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1 625 978 is 10 000 more than _____.

(1) 525 978

(2) 615 978

(3) 624 978

(4) 635 978

2 $\frac{1}{3}$ of X is equal to $\frac{1}{4}$ of Y. What is the ratio X : Y ?

(1) 1 : 3

(2) 2 : 3

(3) 3 : 4

(4) 4 : 5

3 A car travels 85.5 km on 5 ℓ of petrol. How far does it travel on 3 ℓ of petrol?

(1) 17.1 km

(2) 28.5 km

(3) 51.3 km

(4) 80.5 km

102

120

4 There are 115 pupils in a school's badminton CCA. There are 23 more boys than girls. What is the ratio of the number of boys to the number of girls?

(1) 2 : 1

(2) 3 : 1

(3) 3 : 2

(4) 4 : 1

5 The average amount of orange juice in 4 jugs is 1 ℓ 650 $m\ell$. The average amount of orange juice in 3 of the jugs is 1 ℓ 50 $m\ell$. What is the amount of orange juice in the fourth jug?

(1) 600 ml

(2) 2 ℓ 100 $m\ell$

(3) 3 ℓ 450 $m\ell$

(4) 6 ℓ 600 $m\ell$

6 An MP3 player cost $80. Bala bought it at a 20% discount during a sale. How much did he pay?

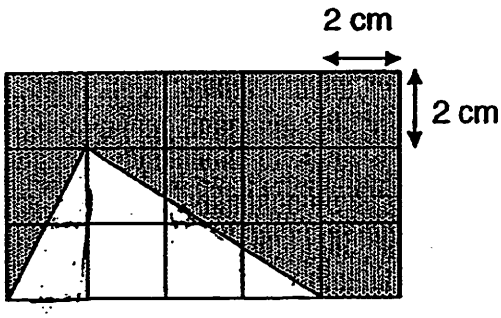
(1) $16

(2) $48

(3) $64

(4) $72

7 Find the area of the unshaded figure below (Figure not drawn to scale).



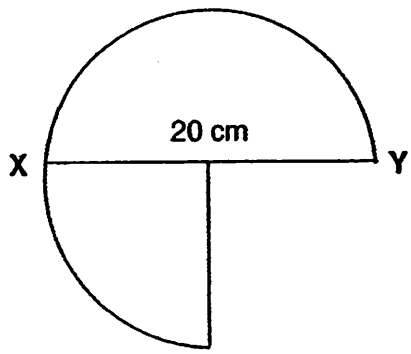
(1) 4 cm^2

(2) 16 cm^2

(3) 32 cm^2

(4) 60 cm^2

8 Given that XY is the diameter of the circle (not drawn to scale), what is the area of the figure? Leave your answers in terms of π.



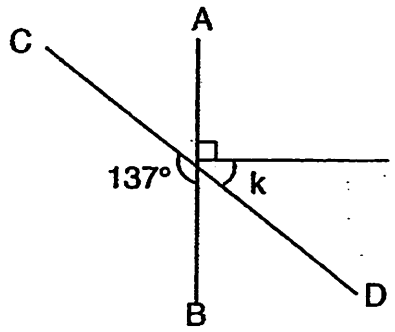
(1) 75π cm^2

(2) 100π cm^2

(3) 300π cm^2

(4) 400π cm^2

9 In the figure shown below (not drawn to scale), AB and CD are straight lines. Find ∠k



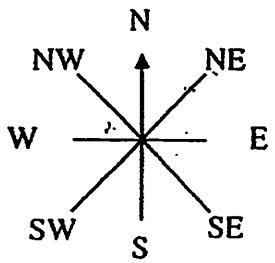
(1) 37°

(2) 43°

(3) 45°

(4) 47°

10 If Creighton makes a 270° clockwise turn, he would face North-West. Where will Creighton face if he makes a 135° anti-clockwise turn from the original position?



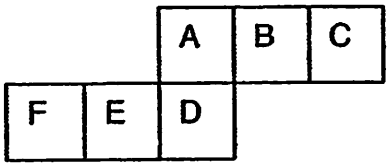
(1) West

(2) East

(3) South

(4) North

11 The figure below shows the net of a cube. If B is the top of the cube, which one of the faces A, C, D, E or F is the <u>base</u> of the cube?



(1) A

(2) D

(3) E

(4) F

12 Melissa took 10 minutes to cycle the full distance from her home to the park. When she jogged $\frac{1}{5}$ of the distance from her home to the park and cycled the remaining distance, she took 16 minutes for the whole journey.
How long would Melissa take if she jogged the full distance to the park?
(Assume that she jogged and cycled at a constant speed)

(1) 10 minutes

(2) 24 minutes

(3) 32 minutes

(4) 40 minutes

124

13 Ali spent a total of 16 hours working on a school project. He completed it in 5 days. If Ali spent an equal amount of time each day on the project, how many hours would he have spent per day?

(1) $1\frac{3}{5}$ h

(2) $3\frac{1}{5}$ h

(3) $3\frac{2}{5}$ h

(4) $4\frac{1}{5}$ h

14 Ahmad, Betty and Charlie shared \$700 in the ratio 3 : 4 : 7. Betty used $\frac{1}{4}$ of her share to buy a dress. How much money had she left?

(1) \$50

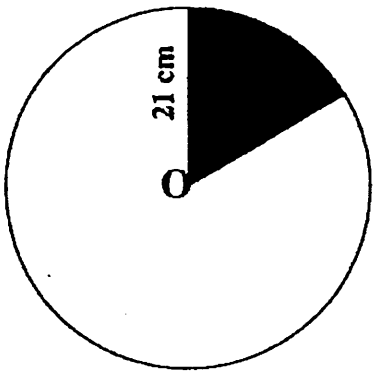
(2) \$100

(3) \$125

(4) \$150

15 In the figure, O is the centre of the circle. If $\frac{1}{6}$ of the figure is shaded, find the perimeter of the **unshaded** part. (Correct your answer to the nearest whole number.)

(Take $\pi = \frac{22}{7}$)



(1) 108 cm

(2) 110 cm

(3) 152 cm

(4) 174 cm

Anglo-Chinese School (Junior)

SEMESTRAL ASSESSMENT 1 (2011)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet B

Thursday 12 May 2011 60 min

INSTRUCTIONS TO PUPILS

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There are 15 questions in this booklet.

Answer ALL questions.

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Name : _____ ( )

Class : 6.( )

Parent's Signature: _____

Booklet	Possible Marks	Marks Obtained
A	20	
B	20	
TOTAL	40	

This question paper consists of 7 printed pages. (Inclusive of cover 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 How many eighths are there in $1\frac{1}{8}$?

Ans: _____

17 Johnny started cycling at 11.35 p.m. If he reached his destination at 2.14 a.m. the next day, how long was his journey?

Ans: _____hr_____min

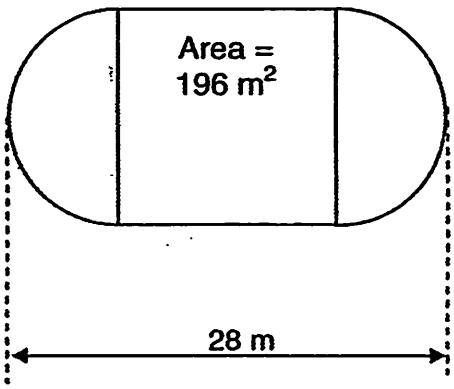
18 James has $48. Ryan has $10 more than James. What is the average amount of money they have?

Ans: $_____

Sub-total: [ ]

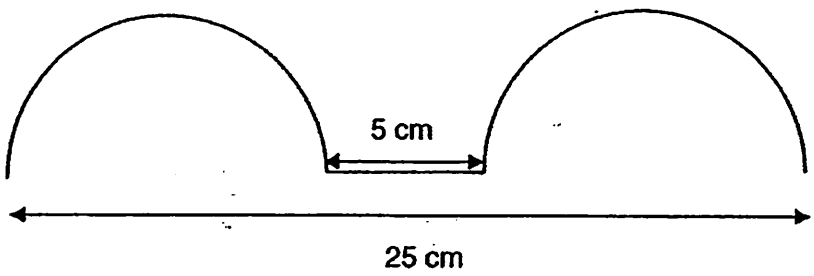
19 The figure below (not drawn to scale) is made up of 2 identical semi-circles and a square. The area of the square is 196 m^2. What is the area of the figure?

(Take $\pi = \frac{22}{7}$)



Ans: _____ m^2

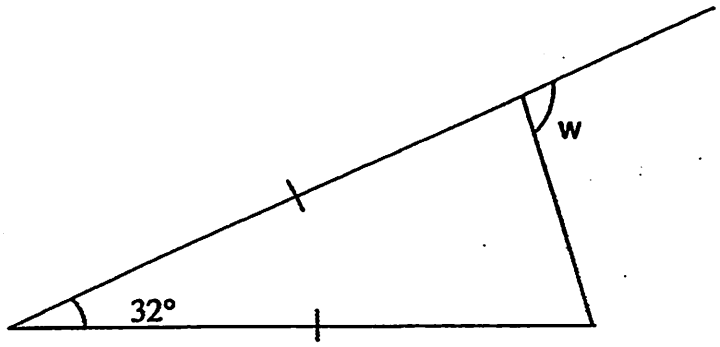
20 Amy bent a piece of wire to form the shape below. It consists of 2 identical semi-circles and a horizontal line. Find the length of the wire. (Take π =3.14)
(Figure is not drawn to scale)



Ans: _____ cm

Sub-total: [ ]

21 In the figure below (not drawn to scale), find value of $\angle w$.



Ans: _____°

22 Express $4\frac{3}{8}$ as a decimal.

Ans:_____

23 A cellphone costs $540 before GST. If Ali has to pay 7% GST, how much does he have to pay altogether?

Ans: $_____

Sub-total: [ ]

24 For every 6 cupcakes Azra baked, she also baked 5 curry puffs. If she baked a total of 66 cupcakes and puffs, how many curry puffs did Azra bake?

Ans: _____

25 Debbie has 25% more hair pins than ribbons. If she has 36 ribbons, how many hairpins does Debbie have?

Ans: _____

Sub-total: [ ]

131

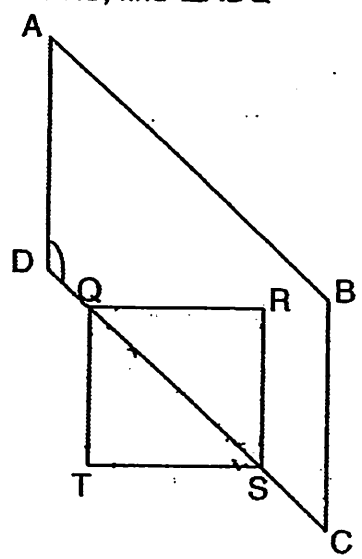
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

26 Vinod had 480 stickers. He gave $\frac{1}{6}$ to his sister and shared the rest equally with 3 other friends. How many stickers did each friend receive?

Ans: _____

27 In the figure below (not drawn to scale), ABCD is a parallelogram and QRST is a square. If BC // RS, find ∠ADQ



Ans: _____ °

Sub-total: [ ]

28 The table below shows the rates of parking charges at a car park.

1st hour	$ 2
Every subsequent 5 minutes	$ 0.10

If Mr Zhou paid $3.30 for his parking fee, how long did he park his car at the car park?

Ans: _____ hr _____ min

29 There are 215 beads in a pouch. $\frac{1}{5}$ of them are red beads. $\frac{3}{4}$ of the remainder are green beads and the rest are blue beads. How many blue beads are there in the pouch?

Ans: _____

30 Dave and Hock Heng share 495 marbles in the ratio 8 : 3. How many more marbles does Dave have than Hock Heng?

Ans: _____

END OF PAPER

Sub-total: [ ]

Anglo-Chinese School (Junior)

SEMESTRAL ASSESSMENT 1 (2011)
PRIMARY 6

MATHEMATICS

PAPER 2

Thursday **12 May 2011** **1 hr 40 min**

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 18 questions in this booklet.

Answer ALL questions.

You are allowed to use a calculator.

Paper	Possible Marks	Marks Obtained
1	40	
2	60	
TOTAL	100	

Name: _____ ( )

Class: 6( )

Parent's Signature: _____

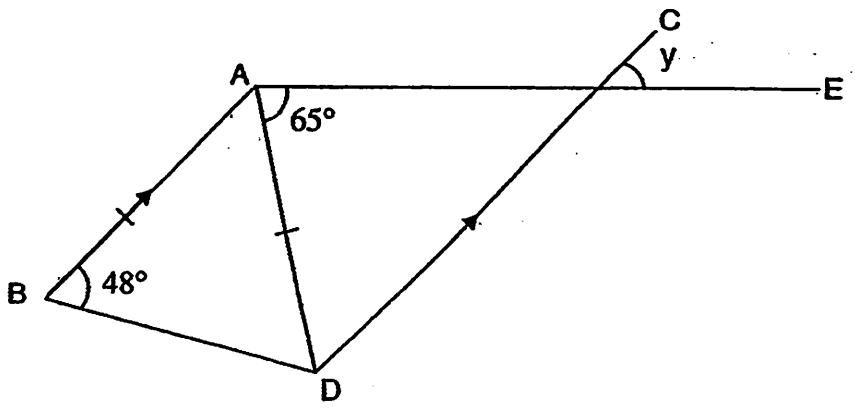
This question paper consists of 14 printed pages. (Inclusive of cover page)

13 4

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. For questions which require units, give your answers in the units stated. (10 marks)

---

1 In the diagram below (not drawn to scale), AB // CD and AB = AD.
Find ∠y



Ans: _____ °

2 A jacket cost 4 times as much as a skirt. The skirt cost $12.60 more than a shawl. If Susie paid $171 for these 3 items, how much did the shawl cost?

Ans: $_____

Sub-Total: [ ]

135

3 Yazid took $\frac{2}{3}$ h to wrap 4 parcels. He spent an equal amount of time wrapping each parcel. At this rate, how long would it take Yazid to wrap 7 such parcels?

Ans: _____ min.

4 May received 55% of the votes of her class to become Class Captain. If May received 4 more votes than the other candidate, what was the total number of votes?

Ans: _____

Sub-Total: [ ]

136

5 In an aquarium, there were 121 swordtails. The ratio of the number of male swordtails to the number of female swordtails was 4 : 7. A few days later, 33 swordtails died, $\frac{2}{3}$ of which were males. Express the ratio of the number of male swordtails to the number of female swordtails left in the aquarium. Give your answer in the simplest form.

Ans: _____

Sub-Total: [ ]

,27

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. (50 marks)

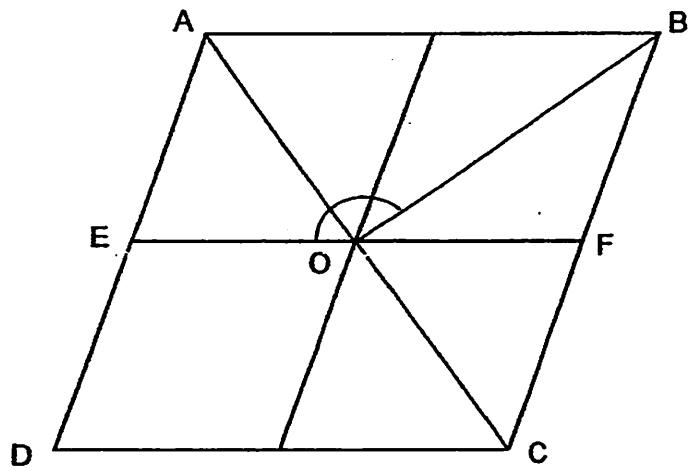
---

6 The length of a rectangle is y cm. The ratio of its length to its breadth is 2 : 1.
a) What is the perimeter of the rectangle? (Give your answer in terms of y)
b) Find the perimeter of the rectangle if y = 24cm.

Ans: (a) _____ [2]

(b) _____ [1]

7 In the figure below (not drawn to scale), ABCD is made up of 4 identical rhombuses. Given that AC = DC, find ∠EOB

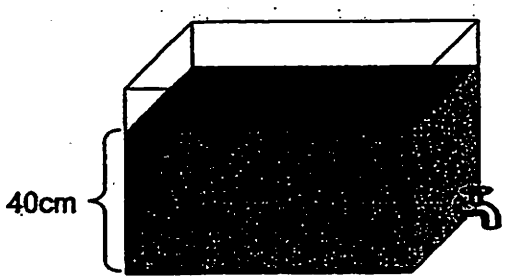


Ans: _____ [3]

Sub-Total: _____

138

8 A rectangular container, measuring 80cm by 50cm by 50cm, was filled with water to a depth of 40cm. The water was drained out for 14 minutes at a rate of 2 ℓ per minute. What was the new height of the water level after 14 minutes?



Ans: _____ [3]

9 $\frac{6}{7}$ kg of prawns and 2 kg of minced meat cost \$52. $\frac{1}{3}$ kg of prawns and 1 kg of minced meat cost \$24. Find the cost of 1 kg of prawns.

Ans: _____ [3]

Sub-Total: [ ]

139

10 The number of members in a stamp-collectors club increased by 40% from March to April. However, the number of members dropped by 25% from April to May. If the difference in the number of members between March and May was 9, how many members were there in May?

Ans: _____ [3]

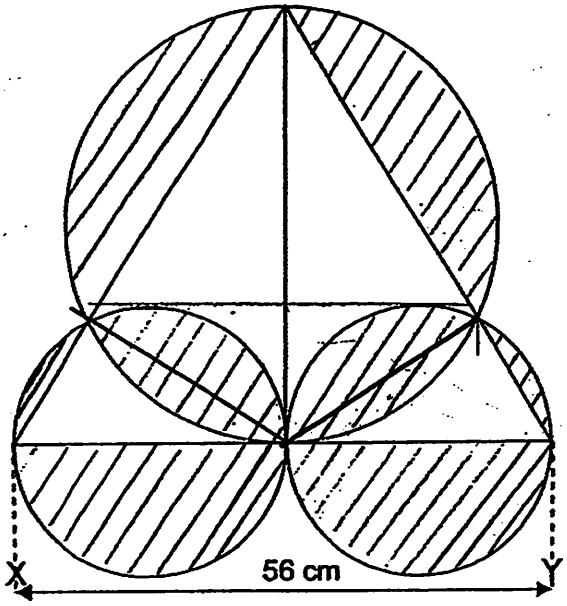
11 Cindy has 650 hair bands, clips and ribbons altogether. The ratio of the number of hair bands to the number of clips is 7 : 5. If Cindy has 30 fewer ribbons than clips, how many hair bands does Cindy have?

Ans: _____ [3]

Sub-Total: [ ]

140

12 The figure below is made up of 1 large circle, 1 triangle and 2 small identical circles. The length of XY is 56 cm and the diameter of the large circle is 40cm. Find the area of the shaded part. Round off your answer to 1 decimal place.



Ans: _____ [4]

Sub-Total: [ ]

141

13 Mr Tok left Town A for Town B at 11.30 am. He travelled at an average speed of 75km/h. At 12.15 pm, Ms Selva left Town A for Town B, travelling on the same route at an average speed of 100km/h.

(a) At what time would Ms Selva overtake Mr Tok?

(b) After Ms Selva had overtaken Mr Tok, she took another 2 hours to reach Town B. What was the distance between Town A and Town B?

Ans: (a) _____ [2]

(b) _____ [2]

Sub-Total: [ ]

142

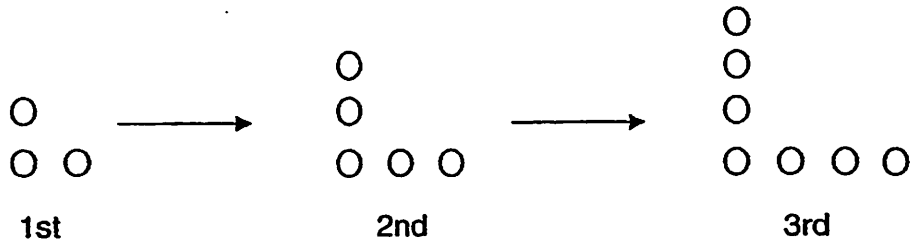
14 Mrs Lee has 60 pencils to give to her class. If she gives each boy 2 pencils and each girl 3 pencils, she will have 6 pencils left over. However, if she gives each boy 3 pencils and each girl 2 pencils, she will have 4 pencils left over. How many pupils are there in Mrs Lee's class?

Ans: _____ [4]

Sub-Total: [ ]

143

15 David used coins to form a series of L-shaped patterns. The first three patterns are shown below.



1st 2nd 3rd

(a) Complete the table below.

L-shaped pattern	Number of coins
1st	3
2nd	5
3rd	7
4th	
5th	
6th	

[1]

(b) Write down the number of coins that David would need to form the 100th pattern?

(c) A pattern is formed with 601 coins. Which pattern would it be?

Ans: (b) _____ [2]

(c) _____ [2]

Sub-Total: [ ]

144

16 There were an equal number of boys and girls at a funfair. After $\frac{1}{3}$ of the boys and $\frac{2}{9}$ of the girls left the funfair, there were 25 more girls than boys remaining behind.

(a) How many boys were there at the funfair at first?

(b) Later 165 more children turned up at the funfair. Then there were $\frac{3}{4}$ as many boys as girls. What was the total number of girls present at the funfair at the end?

Ans: (a) _____ [2]

(b) _____ [3]

Sub-Total: [ ]

145

17 Daphne had 20% fewer books than Jocelyn. Yan Ming had 8 more books than Jocelyn. If Jocelyn were to give 4 books to Daphne, they would both have an equal number of books.

(a) How many books did the 3 girls have altogether?

(b) Yan Ming went to buy some new books. The ratio of books that Yan Ming had to the ratio that Jocelyn had then became 3 : 2. How many new books did Yan Ming buy?

Ans: (a) _____ [2]

(b) _____ [3]

Sub-Total: [ ]

14b

18 The ratio of the number of ducks to the number of geese on Farmer Zhou's farm was 5 : 6. When Farmer Zhou acquired 242 more ducks, there was an overall increase of 40% of the total number of ducks and geese he had at first.

(a) How many ducks and geese were there on Farmer Zhou's farm at the end?

(b) What was the percentage increase in the number of ducks on Farmer Zhou's farm?

Ans: (a)_____[3]

(b)_____[2]

END OF PAPER

Sub-Total: [ ]

147

ANSWER SHEET

EXAM PAPER 2011

SCHOOL : ACS (JUNIOR)
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

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

16)9 **17)2hr 39min** **18)$53** **19)350m^2** **20)36.4cm**

21)106° **22)4.375** **23)$577.80** **24)30** **25)45**

26)100 **27)135°** **28)2h 5min** **29)43** **30)225**

PAPER 2

1) 48° + 48° = 96°
180° − 96° = 84°
180° − 65° − 84° = 31°

2) 6u→$17 + $12.60 = $183.60
1u→$183.60 ÷ 6 = $30.60
SH→$30.60 − $12.60 = $18

3) 4 parcels→40min
1 parcel→10min
7 parcels→70min

4) 55%-->11/20
1 − 11/20 = 9/20
11/20 − 9/20 = 2/20
2/20→4
20/20→4 x 10 = 40

5) 1:3

6) a) y + y + ½y + ½y = 3y
b) y = 24
3y = 24 x 3 = 72cm

7) 60° + 60° + 30° = 150°

8) 80cm x 50cm x 40cm = 16000cm^3
2L = 2000cm^3
14 x 2000cm^3 = 28000cm^3
16000cm^3 − 28000cm^3 = 132000cm^3
132000cm^3 ÷ 80cm ÷50cm = 33cm

9) 6/7 = 18/21 1/3 = 7/21
18/21p + 2m = $52
7/21p + 1m = $24 } x2
14/21p + 2m = $48 }
4/21p = $52 − $48 = $4
21÷4 = 5.25
$4 x 5.25 = $21

10) March = 100%
April = 140%
May = 75/100 x 140/1 = 105%
5%-->9
105%-->9/5 x 105/1 = 189

11)650 + 30 = 680
17u→680
1u→680 ÷ 17 = 40
hb→40 x 7 = 280

12)Triangle→½ x 56cm x 40cm = 1120cm2
56cm ÷ 4 = 14cm
Small circle→14cm x 14cm x Π = 196Πcm2
2 small circles→196Π x 2 = 392Πcm2
40cm ÷2 = 20cm
20cm x 20cm x Π = 400Πcm2
Total area→392Πcm2 + 400Πcm2 = 792Πcm2
Shaded area = 792Πcm2 – 1120 = 1368.1cm2

13)a)75kn/h x ¾ = 56.25km
100km/h – 74km/h = 25km/h
56.25km ÷25km/h = 2.25h = 2¼h
12.15pm_____2¼h _____2.30pm
b)2¼ + 2h = 4¼h
4¼h x 100km/h = 425km

14)2B + 3g = 60 – 6 = 54
3B + 2g = 60 – 4 = 56
4B + 6g = 54 x 2 = 108
9B + 6g = 56 x 3 = 168
9B – 4B = 168 – 108
5B = 60
1B = 60÷5 = 12
3g = 54 – 24 = 30
1g = 30 ÷ 3 = 10
10 + 12 = 22 pupils

15)a)9, 11, 13
b)2 x 100 + 1 = 201
c)601 – 1 = 600
600 ÷ 2 = 300

16)a)1u→25
9u→25 x 9 = 225
b)13u→25 x 13 = 325
325 + 165 = 490
3p + 4p = 7p
7p→490
1p→490 ÷ 7 = 70
4p→70 x 4 = 280

17)a)J = 100%
D = 80%
Y = 100% + 8
100 – 80 = 20
20 ÷ 2 = 10
10%-->4
280%-->4/10 x 280/1 = 112
112 + 8 = 120
b)J = 100% = 4/10 x 100/1 = 40
Y = 40 + 8 = 48
Y : J
3 : 2
2u→40
1u→40/2 = 20
3u→20 x 3 = 60
60 – 48 = 12

18)a)40%-->242
20%-->121
140$-->121 x 7 = 847
b)5 + 6 = 11
11/5 x 7 = 15.4
15.4 = 9.4
9.4 – 5 = 4.4
4.4/5 x 100% = 88%

150

END