Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2010)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet A

Wednesday **25 August 2010** **50 min**

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. You are **not** 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. Question **11** to **15** carry 2 marks each. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS). (20 marks)

1. In 824.173, what does the digit 7 stand for?

   1) 7 thousandths
   2) 7 hundredths
   3) 7 tenths
   4) 7 tens

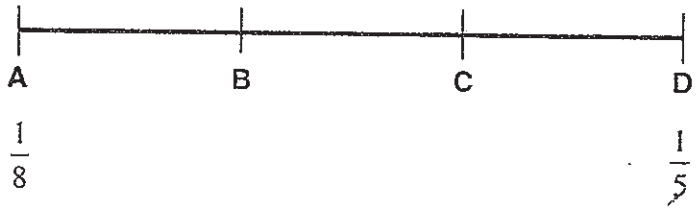
2. How many sixths are there in $4\frac{1}{2}$?

   1) 9
   2) 18
   3) 27
   4) 36

3. Express $\frac{4}{5}$ hour in minutes.

   1) 12 minutes
   2) 40 minutes
   3) 48 minutes
   4) 80 minutes

4. In the line below, A represents $\frac{1}{8}$, D represents $\frac{1}{5}$. AB = BC = CD. What fraction is represented by B?



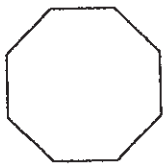
1) $\frac{3}{20}$
2) $\frac{7}{20}$
3) $\frac{2}{13}$
4) $\frac{1}{3}$

5. What is the value of 198 – (33 ÷ 3) x 2 + 8?

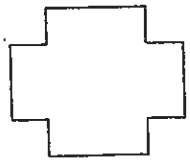
1) 108
2) 168
3) 184
4) 382

6. Which of the following has only **one** line of symmetry?

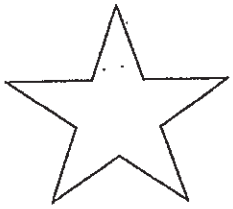
1)



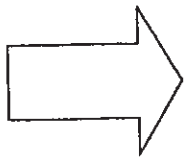
2)



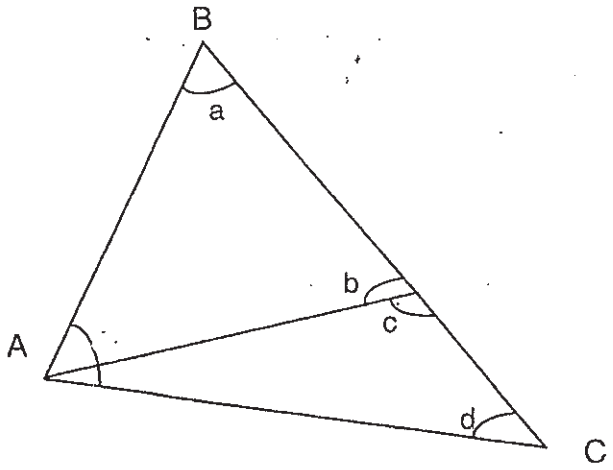
3)



4)

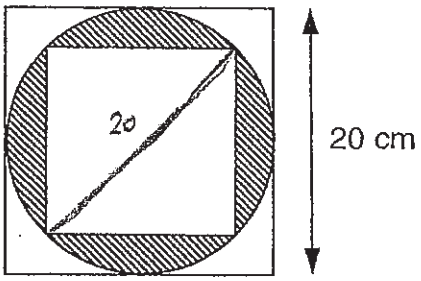


7. In the figure below (not drawn to scale), $\angle BAC$ is $78°$. Find the value of $\angle a + \angle b + \angle c + \angle d$.



1) 102°
2) 156°
3) 204°
4) 282°

8. In the figure, the circle is touching each of the two squares at exactly four points. Given that the side of the bigger square is 20 cm; find the area of the shaded parts. (Take $\pi = 3.14$)

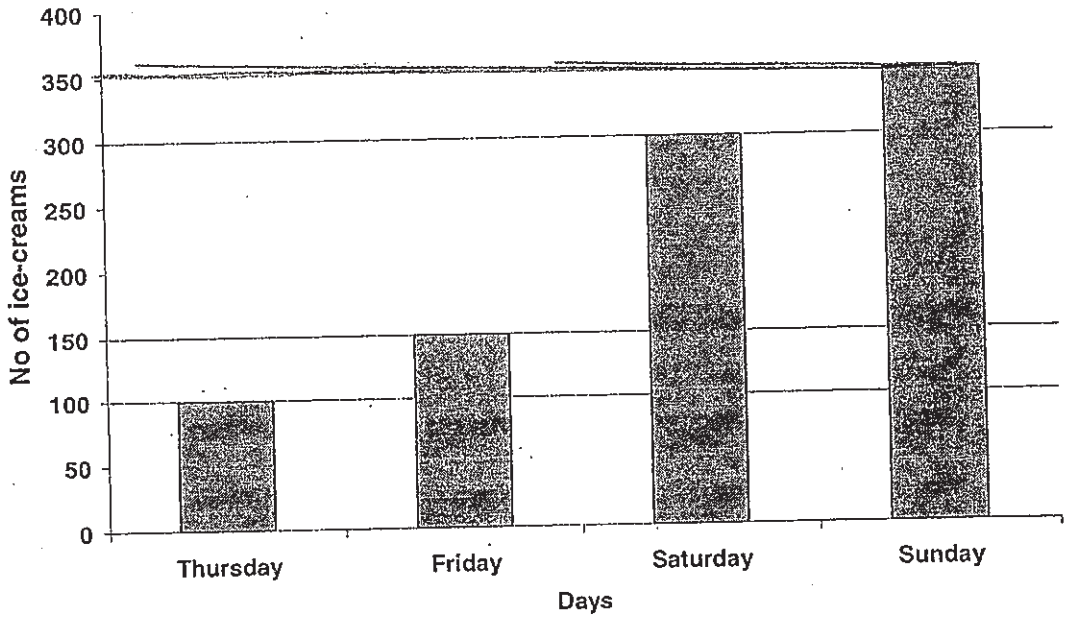


1) 82 cm^2
2) 89 cm^2
3) 114 cm^2
4) 214 cm^2

9. Find the value of $\frac{p}{2} + 5p - 3 + 7$ when $p = 4$.

1) 1
2) 12
3) 15
4) 26

10. The graph below shows the number of ice-creams sold over 4 days.



What is the average number of ice-creams sold over the four days?

1) 225
2) 300
3) 450
4) 900

11. The total mass of a mango and a dragon fruit is 4 kg. The total mass of the dragon fruit and a watermelon is 10 kg. The watermelon is 4 times as heavy as the mango. What is the average mass of the three fruits?

1) 2 kg
2) 4 kg
3) 6 kg
4) 8 kg

12. There are some oranges, apples and pears in a fruit stall. $\frac{1}{4}$ of the fruits are oranges, the rest are apples and pears. The ratio of the number of apples to the number of pears is 5 : 7. If there are 30 less oranges than pears, how many oranges are there?

1) 10
2) 40
3) 70
4) 120

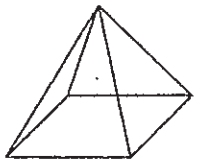
13. The school attendants arranged all the chairs in the hall in rows of 15 and there was no remainder. When the chairs were rearranged in rows of 10, there were 4 more rows but 5 chairs left over. How many chairs were there in the hall?

1) 90
2) 120
3) 135
4) 165

14. A cuboid has a square base of sides 14cm each and a height of 7cm. What is the volume of the cuboid?

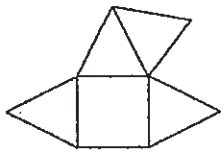
1) 98 cm^3
2) 686 cm^3
3) 1372 cm^3
4) 2744 cm^3

15. The figure shows a pyramid.

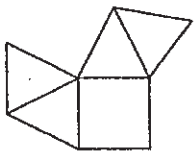


Which one of the following is a net of the pyramid?

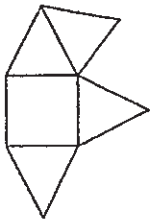
(1)



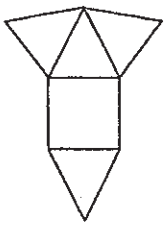
(2)



(3)



(4)



Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2010)
PRIMARY 6

MATHEMATICS

PAPER 1
Booklet B

Wednesday 25 AUGUST 2010 50 min

INSTRUCTIONS TO PUPILS
1. Do not turn over this page until you are told to do so
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. You are **not** allowed to use a calculator.

Name : _____ ( )

Class : 6.( )

Parent's Signature: _____

Booklet	Possible Marks	Marks Obtained
A	20	
B	20	
TOTAL	40	

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

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. Give your answers to the units stated and to its simplest form whenever necessary. (10 marks)

16. Find the value of $7\frac{2}{9} - 3\frac{1}{2}$. (Express your answer as a mixed number.)

Answer: _____

17. $\frac{3}{4}$ of Isaac's money is equal to $\frac{4}{5}$ of Ian's money. If Ian has $120, how much does Isaac have?

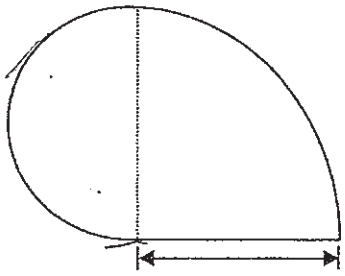
Answer: $ _____

18. Mr Tan and his family went for a music concert and it started at 7.45 p.m. The concert lasted 3 hours and 30 minutes. What time did the concert end?

Answer: _____ p.m.

Sub-total: [ ]

19. Find the area of the figure below. (Take $\pi = \frac{22}{7}$)



28 cm

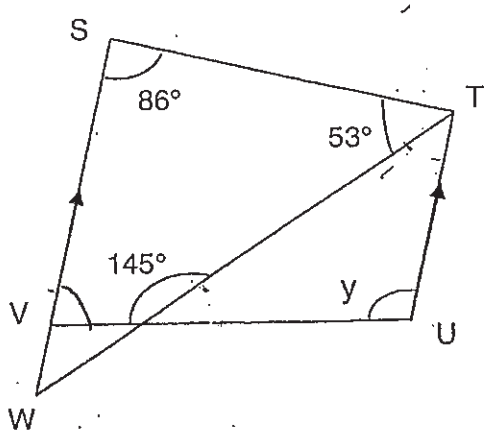
Answer: _____ cm^2

20. During a promotion, a bicycle with a selling price of \$150 was given $2n\%$ discount. If Tommy bought it at the discounted price, how much did he save? Express the answer in terms of n in its simplest form.

Answer: \$_____

Sub-total: [ ]

21. In the diagram below (not drawn to scale), STUV is a trapezium and TW is a straight line. Find $\angle y$.



Answer: _____ °

22. A jug contains 1.32 ℓ of water. It can fill up 12 similar cups exactly. How much water can each cup hold?

Answer: _____ ml

23. Express 450 g as a fraction of 5 kg. (Give your answer in its simplest form.)

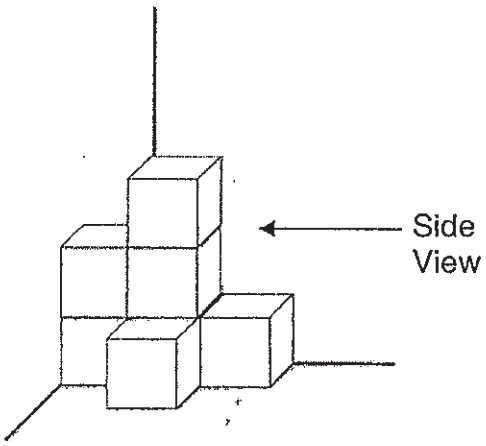
Answer: _____

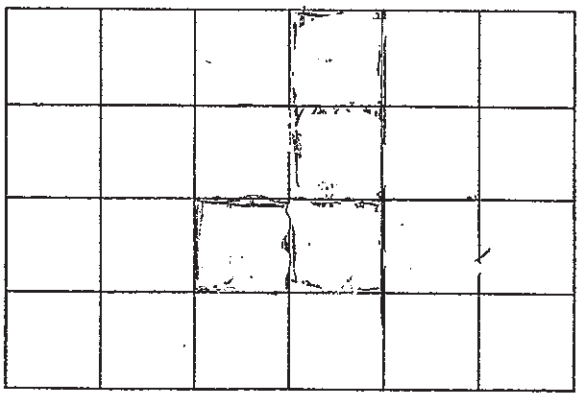
Sub-total: [ ]

24. Express $\frac{7}{25}$ as a decimal.

Answer: _____

25. The figure below is made up of identical cubes. In the grid provided, shade the relevant squares to show the side view of the figure.





Sub-total: _____

Questions **26** to **30** carry 2 marks each. Show all mathematical statements clearly in the space below each question and write your answers in the spaces provided. Give your answers to the units stated and to its simplest form whenever necessary. (10 marks)

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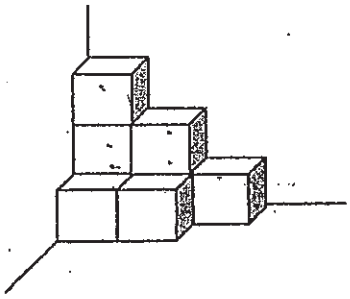
26. The figure below is made up of 2-cm cubes. What is the volume of the figure?



Answer: _____ _____cm^3

27. 3 basketballs and 4 footballs cost $507.
6 basketballs and 3 footballs cost $624.
What is the cost of 1 football?

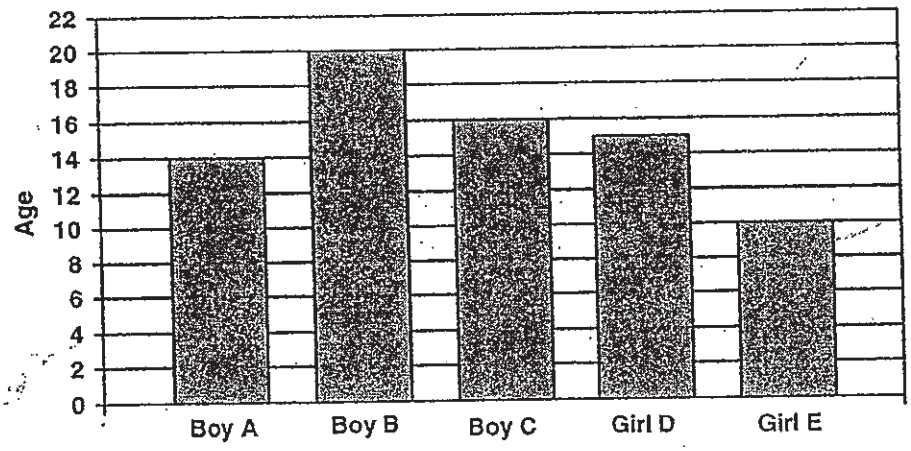
Answer: $_____

Sub-total: [ ]

28. Weiming saved 40% of his salary every month. When Weiming's salary was reduced by 10%, his savings became $1 800. What was his salary at first?

Answer: $_____

29. The bar graph below shows the ages of 5 different children.



What percentage of the total age of the girls is the total age of the boys?

Answer : _____%

Sub-total: _____

30. Charles bought $3k$ boxes of erasers. Each box has 20 erasers. After losing 45 erasers to his classmates in eraser fights, how many erasers had he left? Give the answer in terms of k in the simplest form.

Answer: _____

Sub-total: [ ]

Anglo-Chinese School (Junior)/
Anglo-Chinese School (Primary)

COMBINED PRELIMINARY EXAMINATION (2010)
PRIMARY 6

MATHEMATICS

PAPER 2

Wednesday **25 August 2010** **1 hr 40 min**

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so
2. Follow all instructions carefully.
3. Answer all questions.
4. Show all your workings as marks are awarded for correct working
5. Write your answers in this booklet.
6. You are allowed to use a calculator.

Name :_____( )

Class : 6.( )

Parent's Signature:_____

Paper	Possible Marks	Marks Obtained
1	40	
2	60	
TOTAL	100	

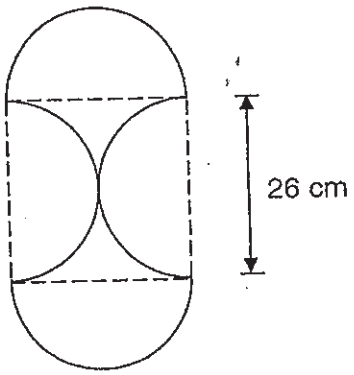
This question paper consists of 16 printed pages. (Inclusive of cover page)

Questions **1** to **5** carry 2 marks each. Show your mathematical statements clearly in the space provided for each question and write your answers in the spaces provided. Give your answers to the units stated and to its simplest form whenever necessary. (10 marks)

1. The pupils in a class of 42 scored an average of 78 marks in a Science Test. It was discovered later that the score of one of the pupils was wrongly recorded as 65. After correcting the score, the average score of the class increased to 78.5. What was the actual score of this pupil?

Answer: _____ _____

2. The figure below is made up of 4 identical semicircles. Use the calculator value of π to find the perimeter of the figure. (Give your answer correct to 2 decimal place)



Answer: _____ _____ cm

Sub-total: [ ]

3. A tank measures 42 cm by 38 cm by 32 cm. Johari fills the tank up to a height of 22 cm. Find the volume of the water in the tank.

Answer: _____ cm^3

4. The table below shows the charges of bicycle rental at ZZ Bicycle Rental Shop.

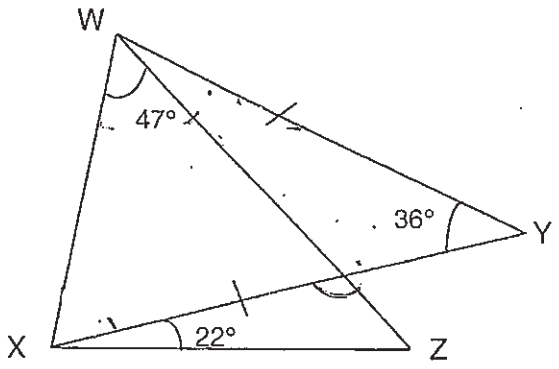
For the first 1 hour or less	$5.50
Every 1 hour thereafter or less	$3.20

Kassim and his brother rented 2 bicycles for $2\frac{1}{2}$ hours. Calculate the total cost of renting the bicycles.

Answer: $_____

Sub-total: [ ]

5. In the figure below (not drawn to scale), WY = XY. Find the value of $\angle WZX$.



Answer: _____ °

Sub-total: [ ]

For questions **6** to **18**, show your steps 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.
The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

6. A carton contained pears and apples in the ratio 9 : 4. The shopkeeper threw away 60 pears that were rotten. He then added 60 apples to the carton. As a result, there were an equal number of pears and apples in the carton. How many pears were left in the carton?

Answer: _____ [3]

7. At first, Joe had $177 and Chris had $129. Each of them bought a pair of jeans and a shirt at the same price. The shirt cost three times as much as the jeans. In the end, Joe had 3 times as much money as Chris. What was the cost of the shirt?

Answer : _____ [3]

Sub-total: [ ]

8. The table below shows the number of mobile phones per family in a particular block of flats.

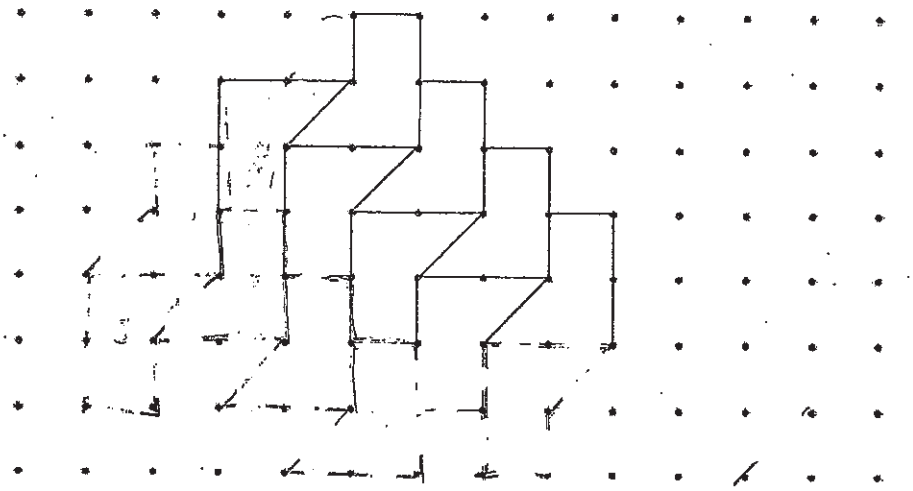
Number of mobile phones	0	1	2	3	4
Number of families	2	24	49	67	28

What is the total number of mobile phones in that block of flats?

Answer: _____ [3]

Sub-total: [ ]

9. The pattern in the box shows part of a tessellation.

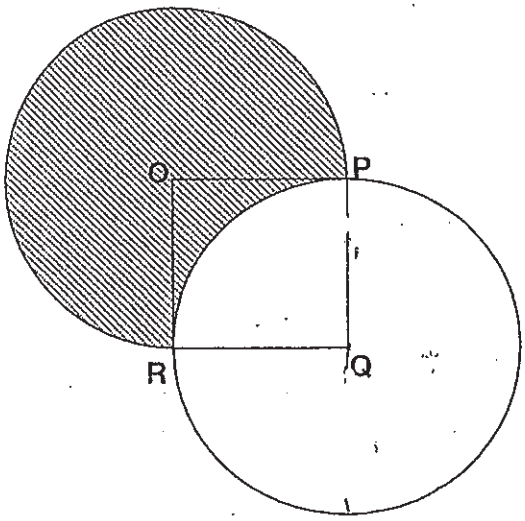


(a) Shade a unit shape of the tessellation. (1m)

(b) Extend the tessellation by drawing **six** more unit shapes in the space provided. (2m)

Sub-total: [ ]

10. The figure below is made up of 2 identical circles with centres **O** and **Q**. **OPQR** is a square of side 12 cm. Use the calculator value of π to find the area of the shaded part. (Give your answer correct to 2 decimal place)



Answer: _____ [3]

Sub-total: ____

11. Jack had a certain number of marbles. He took part in a competition and lost $\frac{1}{5}$ of the marbles. He then gave away $\frac{1}{4}$ of the remaining marbles to a friend, and purchased 154 more marbles. He found that he had 922 marbles.

How many marbles did Jack have at first?

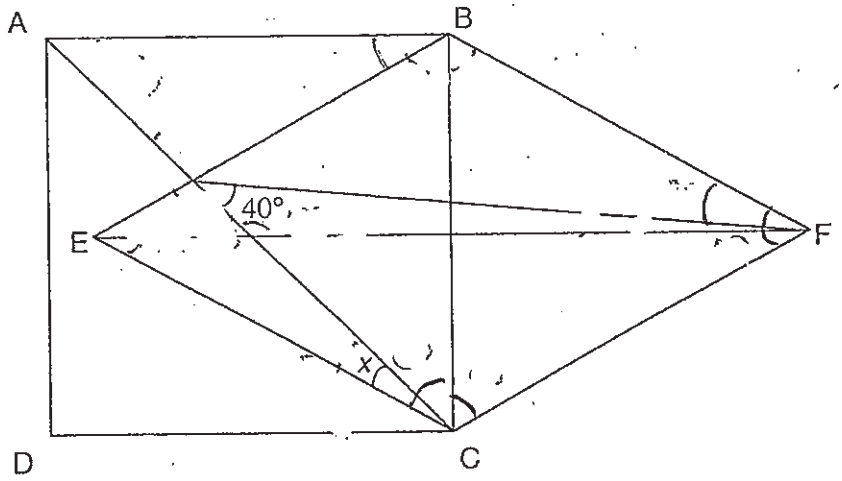
Answer: _____ [4]

Sub-total: [ ]

12. In the figure below (not drawn to scale), ABCD is a square and BECF is a rhombus. Given that BC = BF and $\angle CGF = 40°$,

a) Find the value of $\angle x$.

b) Find the value of $\angle y$.



Answer : a) _____ [1]

b) _____ [3]

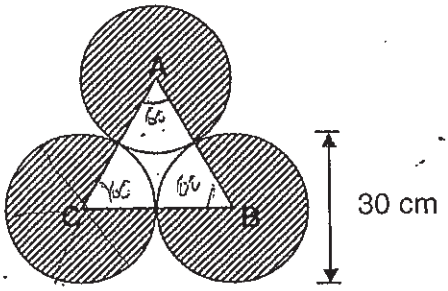
Sub-total: _____

13. Mdm Zhang packed some beads into 14 small boxes and 15 big boxes. There were equal number of beads in each small box and equal number of beads in each big box. Each big box contained 5 more beads than each small box. $\frac{3}{8}$ of the beads were packed in small boxes.
How many beads were there in each small box?

Answer : _____ [4]

Sub-total: [ ]

14. The figure below is made up of 3 identical circles and triangle ABC. Points A, B and C are the centres of their respective circles. Use the calculator value of π to find the area of the shaded part. (Give your answer correct to 2 decimal place)



Answer: _____ [4]

Sub-total: [ ]

15. At 9.30 a.m., Train A left Station A and travelled towards Station B at a uniform speed of 80 km/h. Half an hour later, Train B left Station B and travelled towards Station A at an uniform speed of 90 km/h.

a) How far has Train A travelled when Train B left Station B?
b) If the distance between Station A and Station B is 635 km, at what time would the 2 train pass each other?

Answer : a) _____ [1]

b) _____ [3]

Sub-total: [ ]

16. A tank measuring 80 cm by 60 cm by 55 cm was $\frac{1}{5}$ filled with water.

A tap was turned on to fill it up with water a rate of 9ℓ/min. Every 30 seconds after the tap was turned on, an iron ball with a volume 500 cm^3 was dropped into the tank. How many iron balls would there be in the tank when the water level reached the brim?

Answer: _____ [5]

Sub-total: _____

17. There were some yellow and green beads in Container A and Container B. In Container A, the ratio of the number of yellow beads to the number of green beads was 7 : 2. In Container B, the ratio of the number of yellow beads to the number of green beads was 5 : 1. There were six times as many beads in Container A as in Container B.

(a) What was the ratio of the number of yellow beads in Container A to the number of green beads in Container B? Give your answer in its simplest form.

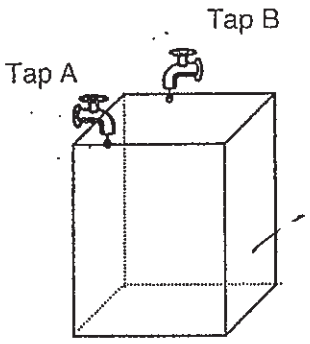
(b) After 84 green beads were put into Container B, the ratio of the number of yellow beads to the number of green beads in Container B became 4 : 5. How many green beads were there in Container B at the end?

Answer: (a) _____ [2]

(b) _____ [3]

Sub-total: _____

18. The figure below shows Tap A, Tap B and an empty tank with a capacity of 66.8 litres. Water flows from Tap A at 2.6 litres per minute and from Tap B at 3.1 litres per minute. Tap B was turned on first. Tap A was turned on 5 minutes later. The taps were turned off at the same time when the tank was completely filled without overflowing. How much water flowed from Tap A?

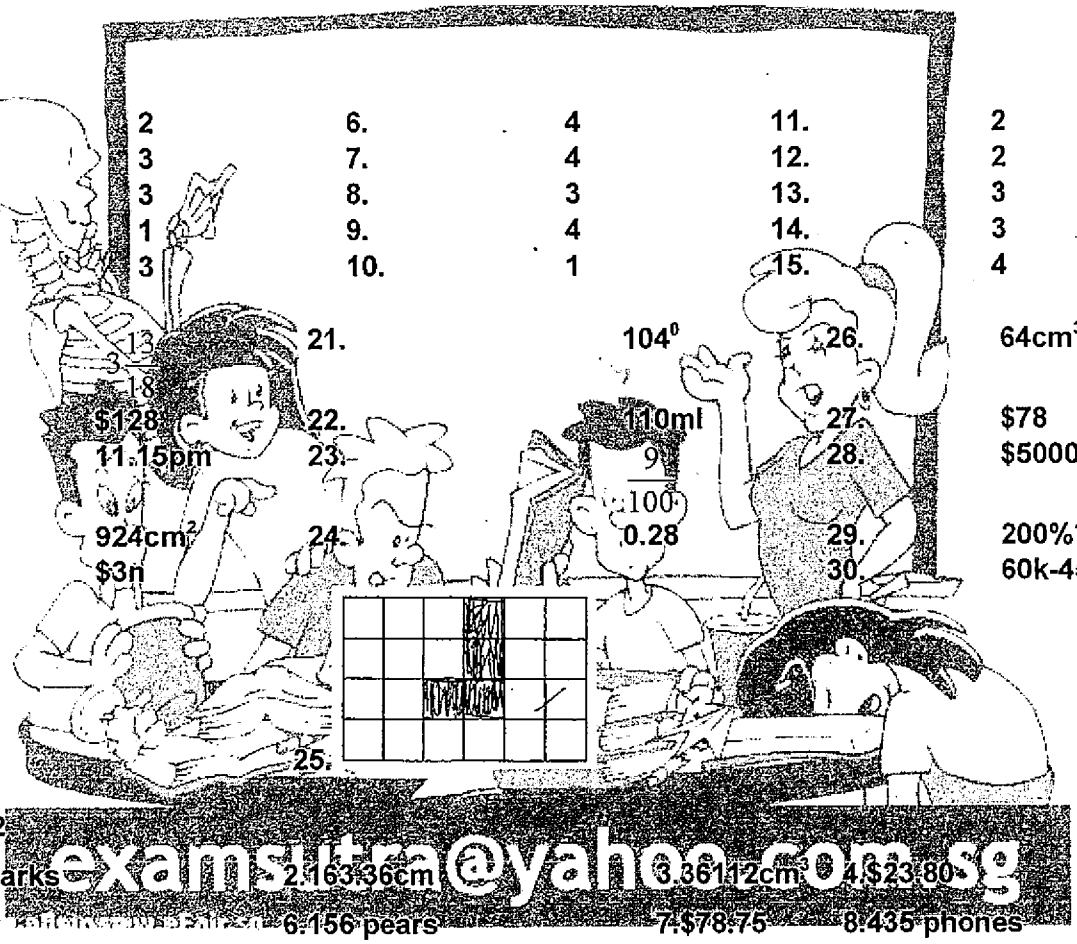


Answer: _____ [5]

End of Paper 2

Sub-total: _____

Answer Ke



Paper 1

1.	2	6.	4	11.	2
2.	3	7.	4	12.	2
3.	3	8.	3	13.	3
4.	1	9.	4	14.	3
5.	3	10.	1	15.	4

16. 13, 3, 18

17.	$128	22.	110ml	27.	$78
18.	11.15pm	23.	$\frac{9}{100}$	28.	$5000
19.	924cm^2	24.	0.28	29.	200%?
20.	$3n			30.	60k-45

21. 104^0

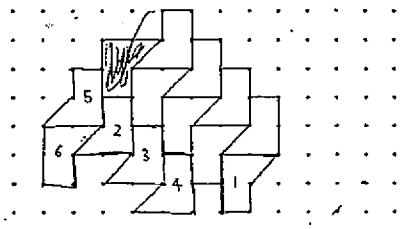
25.

Paper 2

1. 86 marks 2. 2.163.36cm 3. 36112cm^3 4. $23.80

5. 39^0 6. 156 pears 7. $78.75 8. 435 phones

9.



10. 370.19cm^2 11. 1280 marbles 12. a) 15^0 b) 5^0

13. 9 beads 14. 1767.15cm^2 15. a) 40km b) 1.30pm

16. 42 iron ball 17. a) 28:1 b) 100 green beads

18.) 23.4 liters