SEMESTRAL ASSESSMENT 1 (2016)

PRIMARY 6

MATHEMATICS

PAPER 1

Booklet A

6 May 2016 **50 min**

You are **not** allowed to use a calculator for this paper.

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 298 292 to the nearest thousand.

   (1) 298 000

   (2) 298 290

   (3) 298 300

   (4) 300 000

2. Express $\frac{36}{5}$ as a decimal.

   (1) 5.2

   (2) 5.5

   (3) 7.2

   (4) 7.5

3. When a number is divided by 7, the quotient is 8 and the remainder is 3. What is the number?

   (1) 18

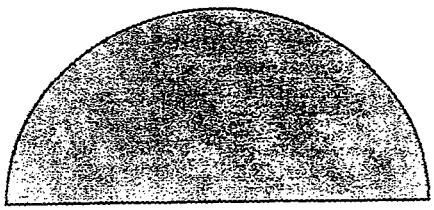
   (2) 56

   (3) 59

   (4) 66

4. The figure below shows a semicircle with diameter 14 cm. Find the area of the semicircle.

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



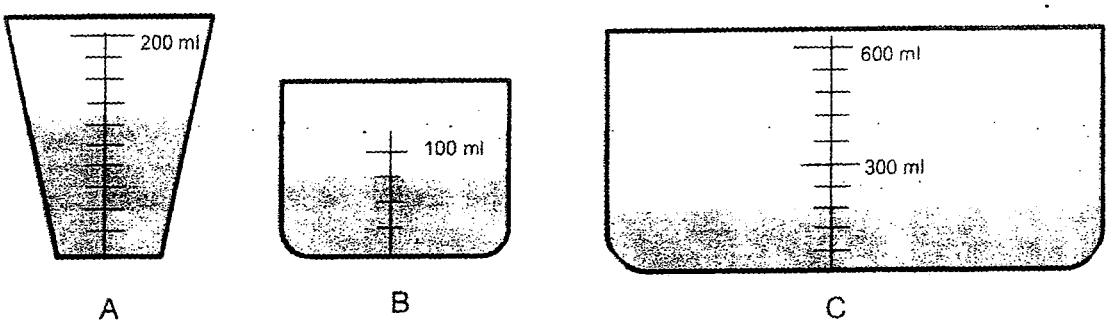
(1) 77 cm^2

(2) 154 cm^2

(3) 308 cm^2

(4) 616 cm^2

5. Below are three containers with some water. Arrange the volume of water in containers A, B and C from the largest to the smallest.



(1) A, B, C

(2) B, C, A

(3) C, B, A

(4) C, A, B

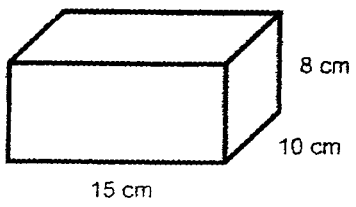
6. A tank with height 8 cm has a rectangular base of length 15 cm and breadth 10 cm. How much water is needed to fill $\frac{3}{4}$ of the tank?

(1) 0.900 ℓ

(2) 9.000 ℓ

(3) 90.00 ℓ

(4) 900.0 ℓ



7. The average of a set of 4 numbers is 80. The average of another set of 2 numbers is 50. What is the average of the 6 numbers?

(1) 45

(2) 65

(3) 70

(4) 130

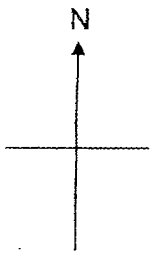
8. Taylor is facing east. She turned anti-clockwise to face north-west. How many degrees did she turn?

(1) 90°

(2) 135°

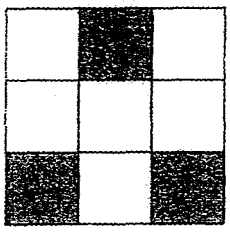
(3) 180°

(4) 225°

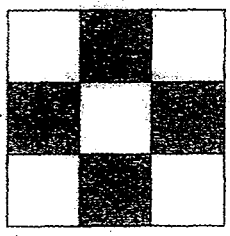


9. The figures below are made up of squares. Which of the following figures **does not** have a line of symmetry?

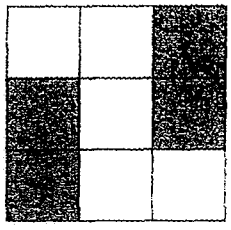
1)



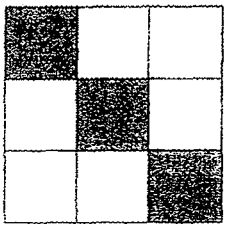
2)



3)



4)



10. The ratio of the number of boys to the number of girls in a class is 3 : 4. Express the number of girls as a fraction of the total number of pupils.

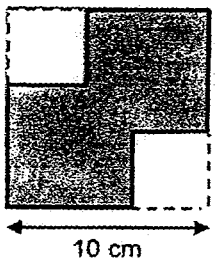
(1) $\frac{3}{4}$

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

(3) $\frac{3}{7}$

(4) $\frac{4}{7}$

11. The figure below shows a square cardboard with length 10 cm. Two identical small squares with length 4 cm were cut out from the cardboard. Find the area of the remaining shaded part.



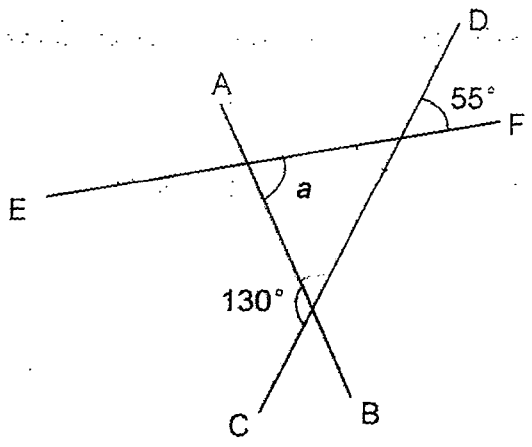
(1) 32 cm^2

(2) 40 cm^2

(3) 68 cm^2

(4) 84 cm^2

12. In the figure below, AB, CD and EF are straight lines. Find $\angle a$.



(1) 25°

(2) 50°

(3) 55°

(4) 75°

13. On Wednesday, 95 pupils had their lunch in the canteen. On Thursday, 76 pupils had their lunch in the canteen. Find the percentage decrease in the number of pupils who had lunch in the canteen.

(1) 20%

(2) 25%

(3) 75%

(4) 80%

14. Henderson had \$15 at first. He bought 2 erasers at \$$p$ each. He then spent \$3 on lunch. He used the remaining money to buy 3 identical pens. Find the cost of 1 pen in terms of p.

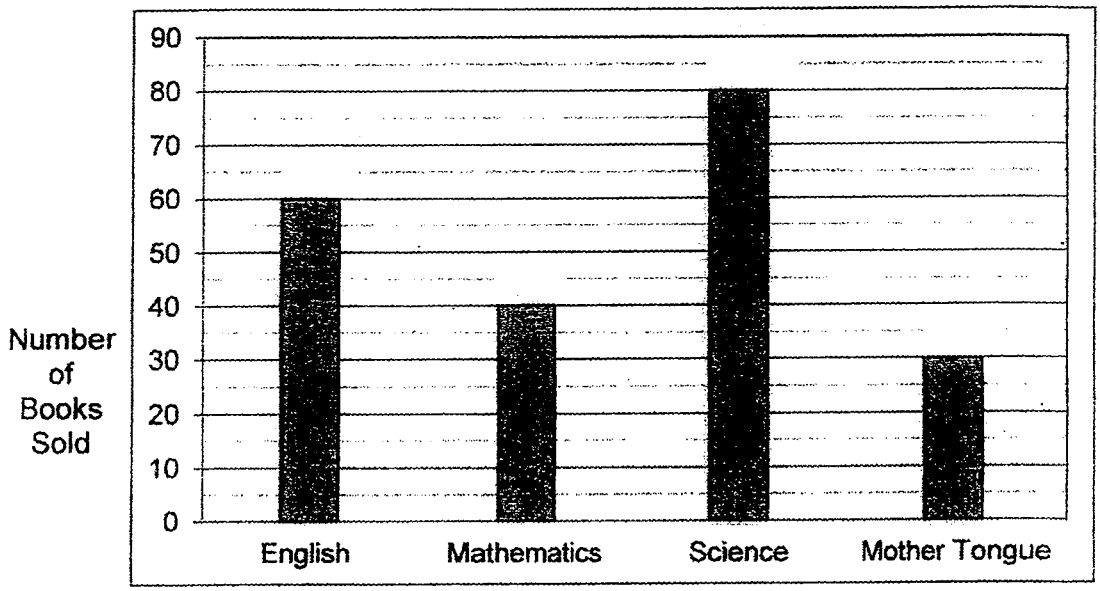
(1) \$ $(9 - p)$

(2) \$ $(4 - 2p)$

(3) \$ $\frac{12 - p}{3}$

(4) \$ $\frac{12 - 2p}{3}$

15. The bar graph shows the number of each type of assessment books sold by a shop.



The table shows the prices of the assessment books.

Type of Assessment books	Price per book
English	$3.00
Mathematics	$4.00
Science	$2.00
Mother Tongue	$5.00

From the sale of which assessment books did the shop collect the most amount of money?

(1) English

(2) Mathematics

(3) Science

(4) Mother Tongue

(Go on to Booklet B)

SEMESTRAL ASSESSMENT 1 (2016)

PRIMARY 6

MATHEMATICS

PAPER 1

Booklet B

6 May 2016 **50 min**

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

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. What is the value of $84 \div 2 - (7 \times 4) + 6$?

Ans: _____

17. Find the product of 5 tenths and 50 tenths.

Ans: _____

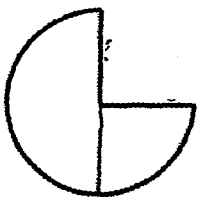
18. How many sevenths are there in $\frac{52}{14}$?

Ans: _____

Sub-Total: [ ]

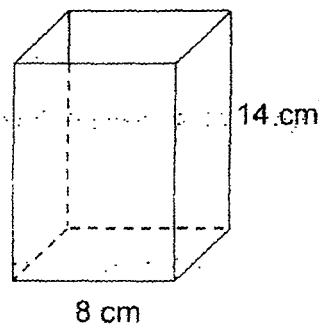
19. The figure below shows a circle of diameter 7 cm, with a quadrant removed from it. What is the perimeter of the figure?

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



Ans: _____ cm

20. Find the volume of the cuboid with a square base of length 8 cm.



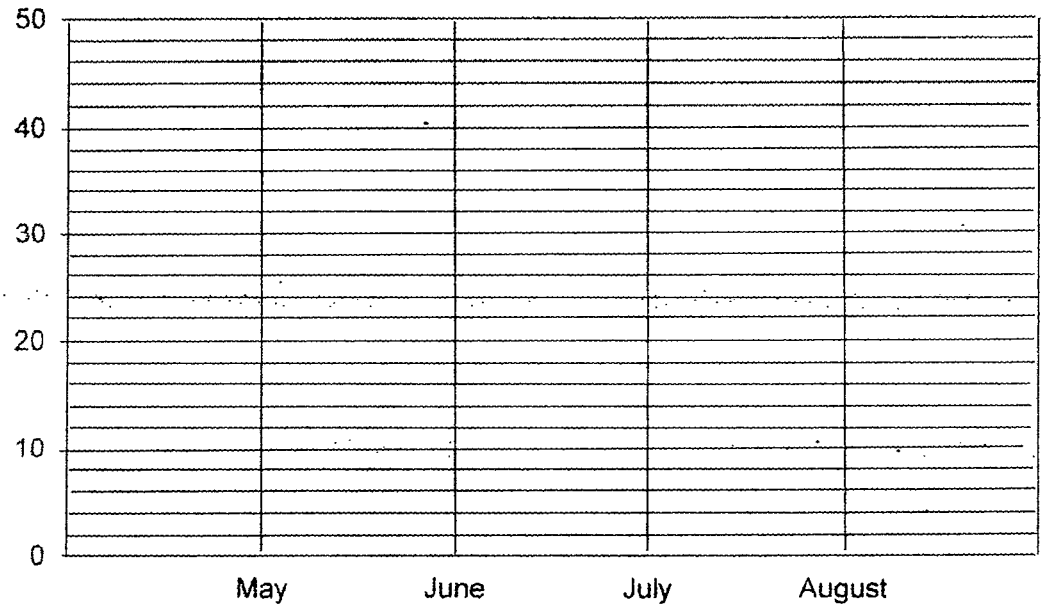
Ans: _____ cm^3

Sub-Total:

21. Jed was in school from 6.15 a.m. to 9.05 a.m. How much time was he in school? Express your answer in hour and minutes.

Ans: _____ hr _____ min

22. The line graph shows the number of computer games sold by a game shop from May to August.



What is the average number of computer games sold per month?

Ans: _____

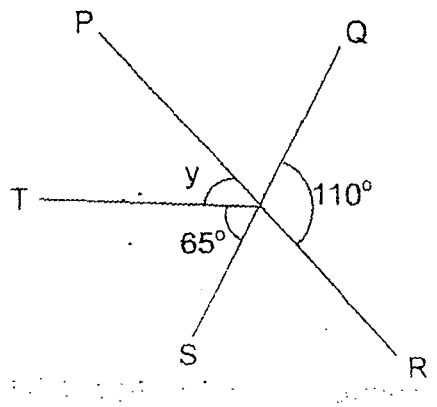
Sub-Total:

23. $6 : 4 : \square = 24 : 16 : 12$

What is the missing number in the box?

Ans: _____

24. In the figure below, PR and QS are straight lines. Find $\angle y$.



Ans: _____ °

25. Express $\frac{2}{3}$ as a percentage. Give your answer correct to 2 decimal places.

Ans: _____ %

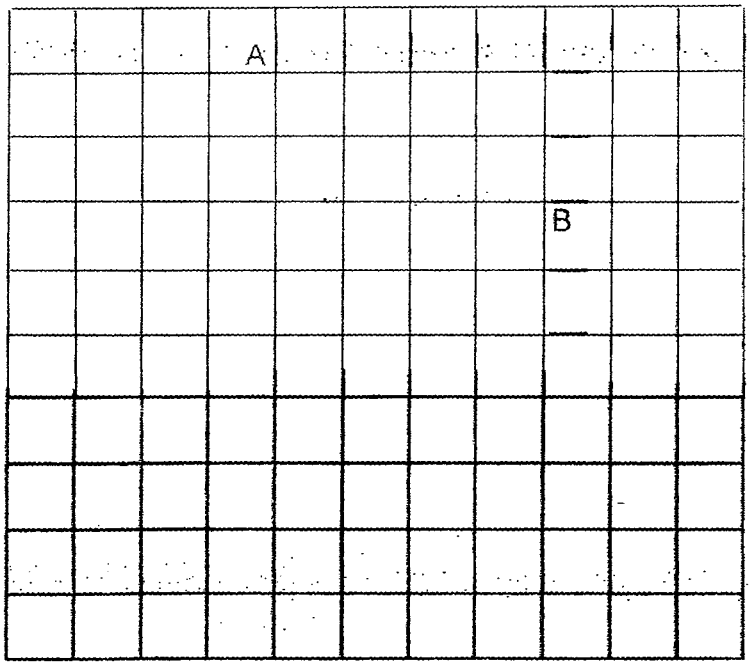
Sub-Total: ☐

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. Maverick earns \$6000 a month. He spends $\frac{2}{5}$ of his salary and gives $\frac{1}{4}$ of the remainder to his parents. He saves the rest. How much money does he save every month?

Ans: \$_____

27. In the square grid, complete the drawing of the triangle ABC whereby AB = AC and $\angle$CAB is a right angle. Measure the length of BC.



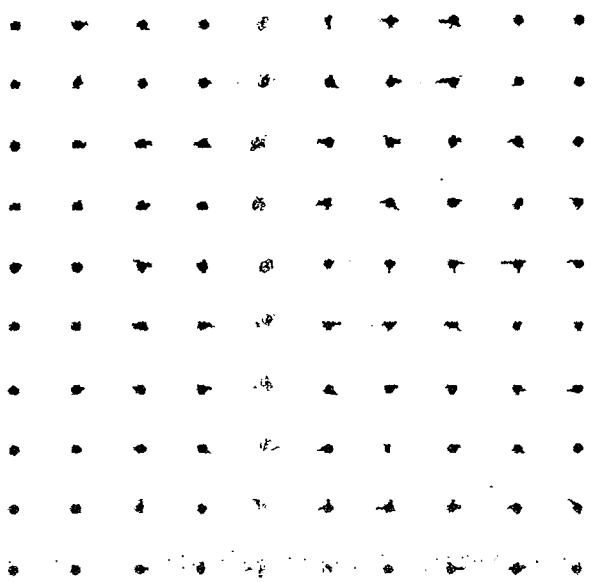
Ans:_____ cm

Sub-Total:

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

(i) Shade a unit shape of the tessellation.

(ii) Extend the tessellation by drawing one more unit shape in space provided.



29. Ali had dinner with his family. He paid a total of $143 including 10% service charge. How much did the meal cost before the service charge was added?

Ans: $_____

Sub-Total:

30. Othello started reading books at the start of January. Each month, he reads k books more than the previous month. He reads 6k books in March. What was the total number of books he read from the start of January to the end of April? Leave your answer in terms of k.

~ End of Paper ~

Sub-Total:

SEMESTRAL ASSESSMENT 1 (2016)

PRIMARY 6

MATHEMATICS

PAPER 2

6 May 2016 **1 h 40 min**

4 You can use a calculator for this paper.

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)

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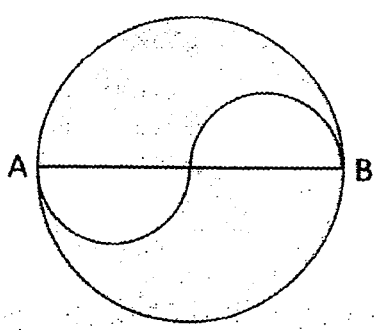
1. The table below shows the charges of renting a pair of Ice skating shoes at the Ice Skating Centre.

For the first hour	\$7.80
Every additional 1 hour or part there of	\$5.00

Michael rented 2 pairs of Ice skating shoes from 2 p.m. to 4.45 p.m. Calculate the total cost he had to pay for renting the 2 pairs of Ice Skating shoes.

Ans: \$_____

2. Two identical semicircles of diameter 40 cm were cut out from a circular piece of paper, where AB is the diameter. Find the area of the remaining paper in terms of π.



Ans: _____ cm^2

Sub-Total:

3. In Johnson Primary School, the ratio of the number of Malay pupils to the number of Indian pupils is 3 : 2. The ratio of the number of Malay pupils to the number of Chinese pupils is 5 : 2. Find the ratio of the number of Malay pupils to the number of Indian pupils to the number of Chinese pupils.

Ans: _____

4. There were 115 passengers on a train. The number of women was $\frac{2}{3}$ of the number of men. After a number of men alighted at a station, there was an equal number of men and women. How many men alighted at the station?

Ans: _____

5. $\frac{3}{4}$ of Evan's mass is equal to $\frac{2}{3}$ of Fabian's mass. Given that Fabian weighs 8 kg more than Evan, find the total mass of Evan and Fabian.

Ans: _____ kg

Sub-Total:

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)

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6. The average number of marbles Joel and Ali had was 900. The average number of marbles Joel and Wendy had was 480. The number of Ali's marbles is 5 times the number of Wendy's marbles, find the total number of marbles Wendy and Ali had altogether.

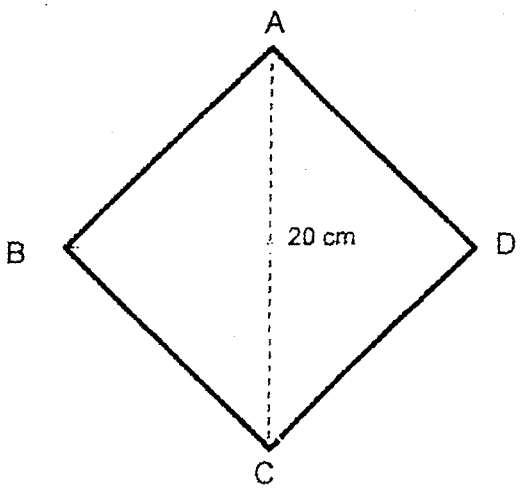
Ans: _____ [3]

7. Mr Kingsley is 45 years old. He is 3 times as old as his son this year. What was Mr Kingsley's age when he was 4 times as old as his son?

Ans: _____ [3]

Sub-Total: _____

8. The figure below is a square ABCD. AC is 20 cm. Find its area.



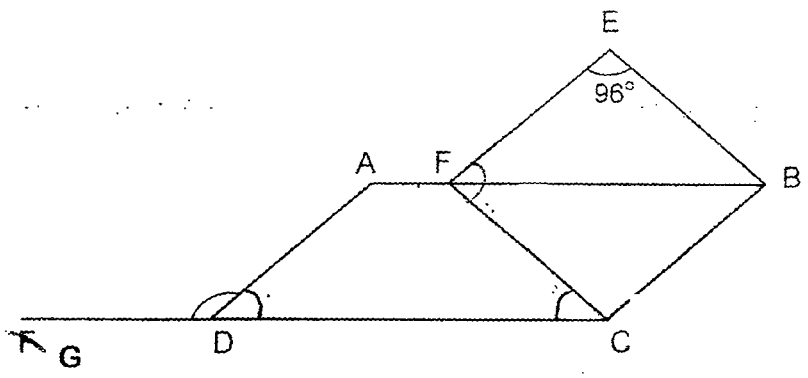
Ans: _____ [3]

Sub-Total:

9. Kester saved a total of \$4840. $\frac{1}{2}$ of his savings was made up of \$10 notes and the rest was made up of \$2 notes. How many notes did he have altogether?

Ans: _____ [3]

10. ABCD is a parallelogram and FEBC is a rhombus. $\angle$FEB is 96°.
Find ~~$\angle$ADE~~ $\angle$ADG



Ans: _____ [3]

11. Lawrence spent $\frac{1}{3}$ of his money on a washing machine. He spent $\frac{1}{3}$ of his remaining money and an additional $250 on a computer. He then spent $200 on a DVD player and had $30 left. How much money did he have at first?

Ans: _____ [4]

Sub-Total:

12. Emmanuel had $300 in his piggy bank and Indra had $240 at first. Every week, Emmanuel saved $6 and Indra saved $8. They stopped saving once they had the same amount of money in their piggy banks.

(a) How many weeks did it take for them to have the same amount of money in their piggy banks?

(b) How much money did they have in their piggy banks altogether?

Ans: (a) _____ [2]

(b) _____ [2]

Sub-Total: [ ]

13. At 8.00 a.m., Car A travelled from Newton House towards Orchard Garden at a uniform speed of 60 km/h. 15 minutes later, Car B travelled from Orchard Garden towards Newton House at a uniform speed of 40 km/h.

a) How far had Car A travelled when Car B left Orchard Garden?

b) The distance between Newton House and Orchard Garden was 35 km. At what time would the Car A and Car B meet each other?

Ans: a) _____ [1]

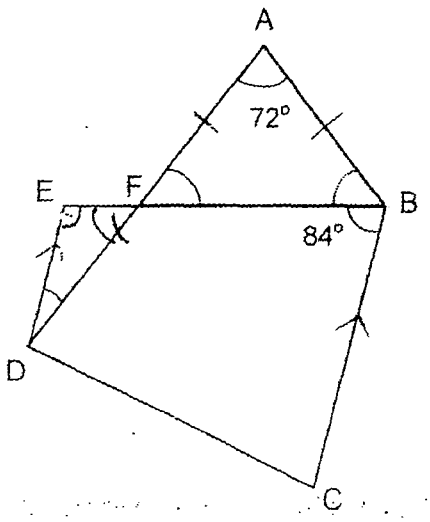
b) _____ [3]

Sub-Total:

14. In the figure below, AFD and EFB are straight lines. ED is parallel to BC. $\angle$ EBC = 84° and AF = AB.

a) Find $\angle$ AFB.

b) Find $\angle$ EDF.



Ans: a)_____ [1]

b) _____ [3]

Sub Total: [ ]

15. Bob used 70% of his money to buy 6 balls and 10 toy cars. The cost of each ball is 3 times the cost of each toy car. He bought more toy cars with his remaining money. How many toy cars did he buy altogether?

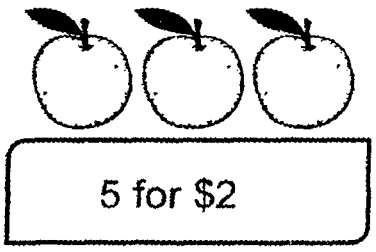
Ans: _____ [4]

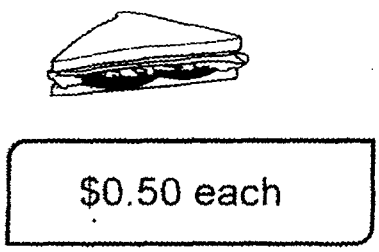
Sub-Total: [ ]

16. Danny bought some sandwiches and apples. The ratio of the number of sandwiches to the number of apples was 5 : 2. Danny's mother then gave him another 30 sandwiches and 5 apples and the ratio of the number of sandwiches to the number of apples became 3 : 1.

(a) How many sandwiches did Danny buy?

(b) Danny bought the apples at 5 for $2 ~~each~~ and the sandwiches at $0.50 each. What was the total amount of money that Danny spent on the food?





Ans : (a) _____ [3]

(b) _____ [2]

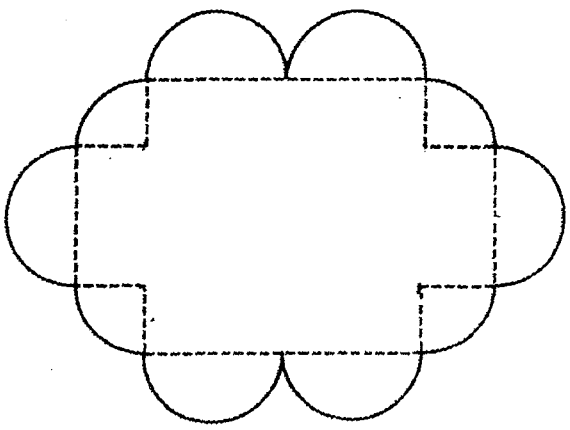
Sub-Total

17. The figure below shows a placemat. The outside edge of the placemat is formed by 6 semicircles and 4 quarter circles, each of radius 4 cm.

a) Find the perimeter of the placemat.

b) Find the area of the ~~placement.~~ placemat

Express your answers in terms of π.

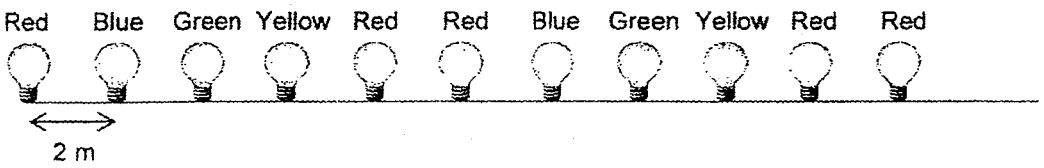


Ans : (a) _____ [2]

(b) _____ [3]

Sub-Total: [ ]

18. Winstedt Road is decorated with light bulbs of different colours. The light bulbs are placed at 2 m apart. The colour of the light bulbs follow a repeated colour pattern as shown below.



Complete the table below.

Light Bulb Number	Colour
1	Red
2	Blue
3	Green
4	Yellow
5	Red
6	Red
7	Blue
8	Green
9	Yellow
. . .	. . .
34	(a) _____ [1]

The total length of Winstedt Road is 2.5 km long,

b) How many light bulbs are there along Winstedt Road ?

c) How many light bulbs are red in colour?

Ans : (b) _____ [2]

(c) _____ [2]

~ End of Paper ~

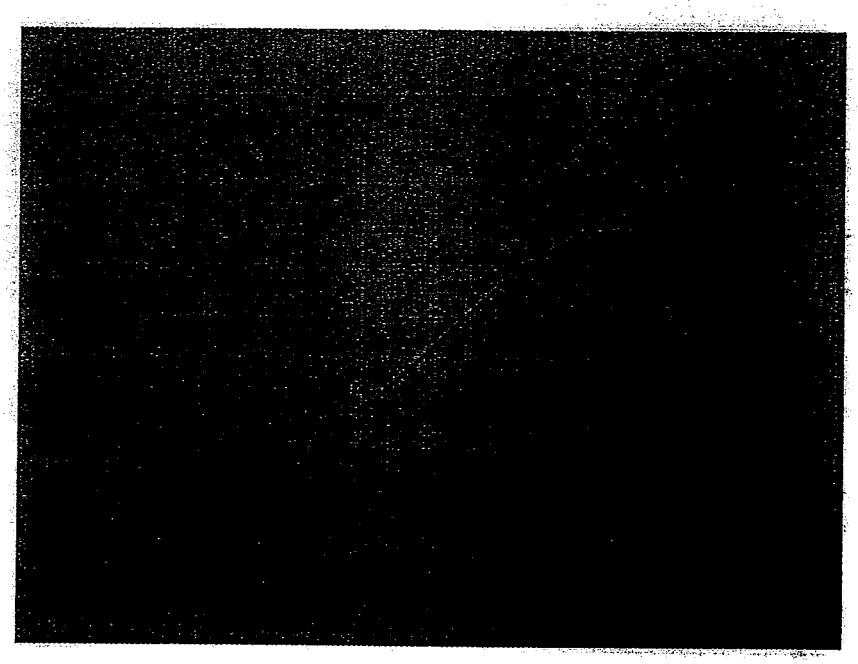
Sub-Total:

EXAM PAPER 2016
LEVEL : PRIMARY 6
SCHOOL : ANGLO CHINESE
SUBJECT : MATHEMATICS
TERM : SA1

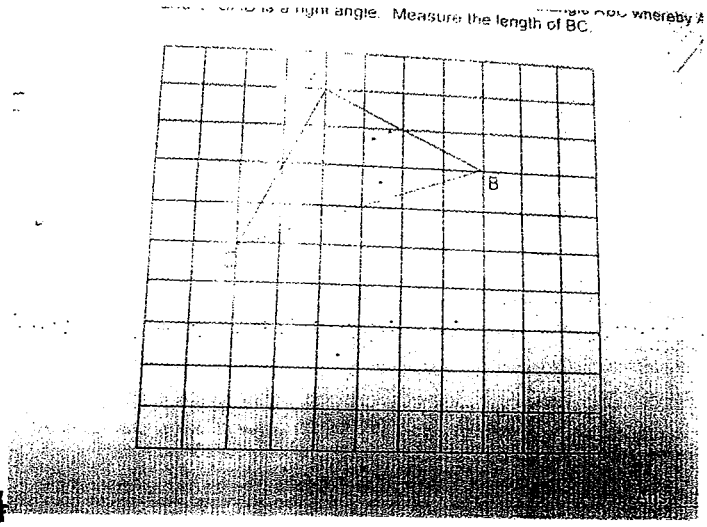
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1	3	3	1	4	1	3	2
Q9	**Q10**	**Q11**	**Q12**	**Q13**	**Q14**	**Q15**	
3	4	3	4	1	4	1	

Q16	$84\div2-28+6$ $=42-28+6$ $=14+6$ $=20$	**Q17**	$0.5\times5=2.5$
Q18	$\frac{52}{14}\rightarrow\frac{26}{7}$ $26\div7=3R5$ $3\times7+5=26$	**Q19**	Semi➔ ½πd $\frac{1}{2}\times\frac{22}{7}\times7$ $=11$ quad➔ $\frac{1}{4}\times\frac{22}{7}\times7$ $=5.5$ $11+5.5+7$ $=23.5cm$
Q20	$8\times8\times14=896$	**Q21**	2 hr 50 min
Q22	$12+14+30+40=96$ $96\div4+24$	**Q23**	$12\div4=3$
Q24	$110°-65°=45°$	**Q25**	0.666➔ $\frac{666}{1000}$➔ $\frac{66.6}{100}$ $66.6=66.6$
Q26	$6000\div20=300$ 9u➔ $9\times300=2700$	**Q27**	5.8cm
Q28		**Q29**	110%➔ 143 1%➔ 130 100%➔ 130×100 $=130$
Q30	$6K-K=5K$ $5K-K=4K$ $6K-K=7K$ $7K+6K+5K+4K=22K$ 22K books.		

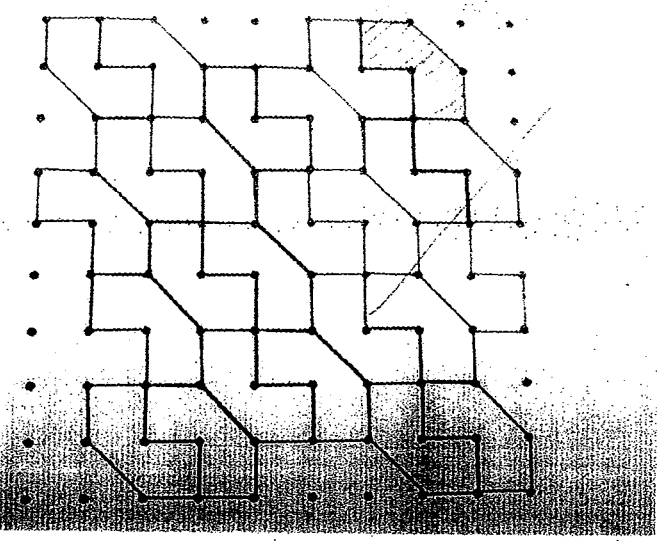
Q22.



Q27.



Q28.



Q1. 5+5+7.80=17.80 17.80×2=35.60	**Q2.** 200π×2 =400π Big→ $\pi \cdot ^{2}$ $= \pi \ 40\times40 = 1600\pi$ $1600\pi - 400\pi = 1200\pi$
Q3. M : I M : C 3 : 2 5 : 2 15 : 10 : 6 Ans: 15: 10 : 6	**Q4.** 5u→115 1u→115÷5=23
Q5. $\frac{3}{4}\rightarrow\frac{6}{8}$ $\frac{2}{3}\rightarrow\frac{6}{9}$ 1u☐8 17u☐17×8 = 136	**Q6.** 4u→1800−960=840 1u→840÷4=210 6u→6×210=1260
Q7. 1u→ 45÷3=15 45−15=30 1p→30÷3=10 1u→10×4=40 years old	**Q8.** 20÷2 =10 5×10= 50 50×4 = 200cm^2
Q9. 4840÷2 = 2420 2420÷10 = 242 2420÷2 =1210 1210+242=1452 Ans: 1452 notes	

Q10. £ CFB→ 180°−96=84°
84°÷2=42°
£ AFC→ 180°−42°=42°=138°
£ FCD→ 180°−138°=42°
£ ADC→ 180°−42°−96°=42°
£ ADG→ 180°−42°= 138°
Ans: 138°

Q11. 2u→ 200+30+250=48
1u→ 480÷2=240
3u→ 240×3=720
2p→ 720
1p→ 720÷2=360
3p→ 360×3=1080
Ans: $1080

Q12. (a)300−240=60
8−6=2
60÷2=30
(b) 30×8=240
240×2=480
480×2=960 (a) 30 weeks
(b) $960

Q13. (a) 60÷4=15
Car A had travelled 15km when
Car B left Orchard Garden.
(b) 8.00+15min=8.15
35−15=20
60+40=100
100÷5=20
60÷5=12min
8.15+12min=8.27a.m

Q14. a) £ AFB→ 180°−72°=108°
108°−2°=54°
b) £ DEB→ 180°−84°=96°
£ DEB→ 180°−54°−96=30°
EOF

Q15. 18+10=28
28u→ 70%
1u→ 70÷28=2.5
?u→ 30÷2.5=12
12u→ 30%
12+10=22

Q16. a) 6u+15=5u+30
6u−5u=30−15
1u→ 15
5u→ 5×15=75 sandwiches
b) →75×0.5=37.50
A→ (15×2)−5×2=12
$37.50+$12= $49.50

Q17. a) Semi→ ½πd
=½×π×8=4π
6s→ 4π×6=24π
quad→ ¼πd=¼×π×8=2π
4q→ 2π×4=8π
Total→ 8π+24π=32π

b) Semi→ $\frac{1}{2}\pi r^2$
=½×π×4×4=8π
6 Semi→ 6×8π=48π
quad→ $\frac{1}{4}\pi r^2$
=¼×π×4×4=4π
4q→ 4×4π=16π
Rec→ 8×4=32
2 Rec→ 2×32=64
Square→ 16×16=256
Total→ 256+64=320
16π48π=64π cm^2

Q18.
a) Yellow
b) (1250+1=1251)
c) 250×2+1= 501

END.