新加坡福建会馆属下五校小六统一考试

道南·爱同·崇福·南侨·光华

SINGAPORE HOKKIEN HUAY KUAN

5-SCHOOL COMBINED PRIMARY 6 PRELIMINARY EXAMINATION

TAO NAN • AI TONG • CHONGFU • NAN CHIAU • KONG HWA

2007

数学 MATHEMATICS

BOOKLET A

Total Time For Booklets A and B: 2 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

✓ Do not open this booklet until you are told to do so.
✓ Follow all instructions carefully.
✓ Answer all questions.

This booklet consists of 8 printed pages.

School : _____

Name : _____ ( )

Class : _____

Date : 28 August 2007

TOTAL	20

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 (OAS). [20 marks]

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1) 30 min = _____ s

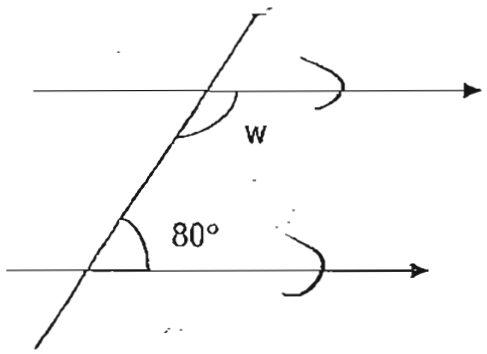
(1) 180

(2) 300

(3) 1800

(4) 3000

2)



∠w is _____.

(1) 20°

(2) 80°

(3) 100°

(4) 180°

125

3) Mrs Tan bought 3 ducks weighing 1.3 kg, 1.3 kg and 2.2 kg.
What was the average mass of the ducks?

(1) 1.3 kg

(2) 1.6 kg

(3) 2.4 kg

(4) 4.8 kg

4) There are $\frac{2}{5}$ as many female workers as male workers in a factory.
The ratio of the number of male workers to the number of female workers in the factory is _____.

(1) 5 : 2

(2) 2 : 5

(3) 3 : 5

(4) 5 : 3

5) Paul had \$2a. He spent \$2 on a toy. How much money had he left?

(1) \$$a$

(2) \$4a

(3) \$$(a - 1)$

(4) \$$(2a - 2)$

6) Add 44.2 and 0.81. The digit in the tenths place is _____.

(1) 1

(2) 0

(3) 5

(4) 4

7) Which of the following has the largest value?

(1) $\frac{7}{8}$

(2) $\frac{9}{10}$

(3) $\frac{11}{12}$

(4) $\frac{13}{14}$

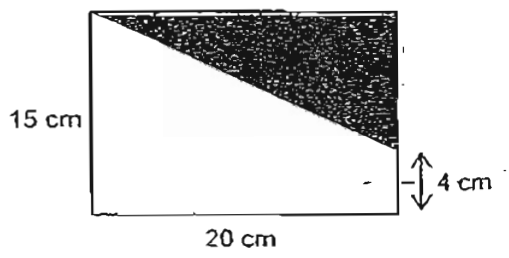
8) In the rectangle below, the area of the shaded triangle is _____ cm^2.

(1) 110

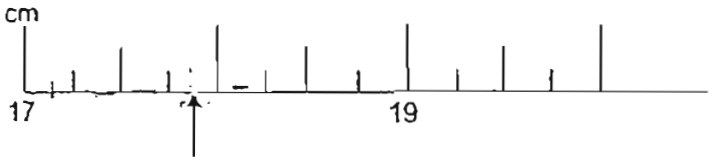
(2) 150

(3) 220

(4) 240



9) The figure below shows part of a measuring tape.
What is the best estimate of the reading shown by the arrow?



(1) 18.5 cm

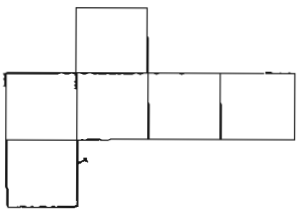
(2) 18.3 cm

(3) 17.8 cm

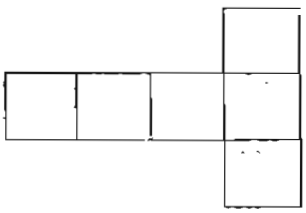
(4) 17.5 cm

10) Which of the following nets when folded does **not** form a cube?

(1)

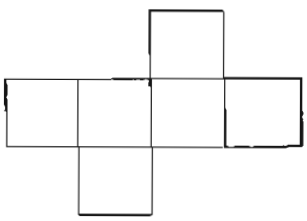


(2)



(3)

(4)



11) $78 \times 62 + 10 \times 62 = \square \times 62 - 62$

The missing number in the box is _____.

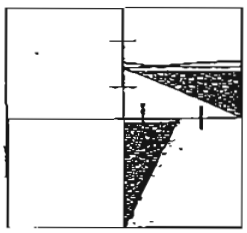
(1) 72

(2) 87

(3) 88

(4) 89

12) The figure is made up of 4 squares. What fraction of the figure is shaded?



(1) $\frac{1}{7}$

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

(3) $\frac{6}{7}$

(4) $\frac{7}{8}$

13) Siew Lee paid $56 for 4 identical belts and 6 identical hair clips.
Each belt cost $4 more than each hair clip. Find the cost of one hair clip.

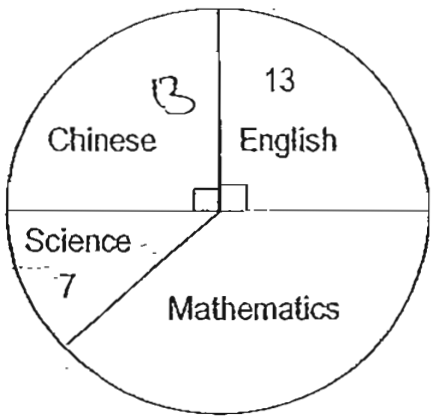
(1) $3.00

(2) $4.00

(3) $5.60

(4) $6.60

14) The pie chart below shows the favourite subjects of pupils in a class.



Mathematics is the favourite subject of _____ pupils.

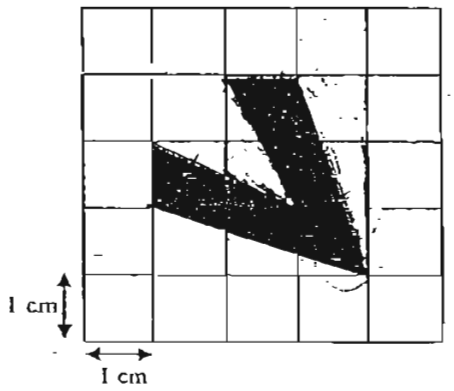
(1) 19

(2) 20

(3) 26

(4) 33

15) What is the area of the shaded figure?



(1) 6 cm^2

(2) 5 cm^2

(3) 3 cm^2

(4) 4 cm^2

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BOOKLET B

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Name : _____ ( )

Class : _____

Date : 28 August 2007

TOTAL	80

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) Find the value of $50 \div 5 \times 2$.

Ans: _____

17) Express $3\frac{1}{4}$ km in metres.

Ans: _____ m

18) Find the value of $\frac{1}{2} \div 2$.

Ans: _____

133

19) A carton of eggs cost $2.50. Mrs Yong paid $10 for some cartons of eggs. How many cartons of eggs did she buy?

Ans: _____

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20) Joseph mixed 1 litre of orange syrup with 3 litres of water. He poured the mixture equally into 5 bottles. Each bottle contained _____ *ml* of mixture.

Ans: _____ *ml*

---

21) Mrs Lee gave a Mathematics test to her class of 20 pupils.
She recorded the number of questions they answered correctly in the table below.

Number of questions answered correctly	Number of pupils
8	10
6	10

Find the average number of questions the pupils answered correctly.

Ans: _____

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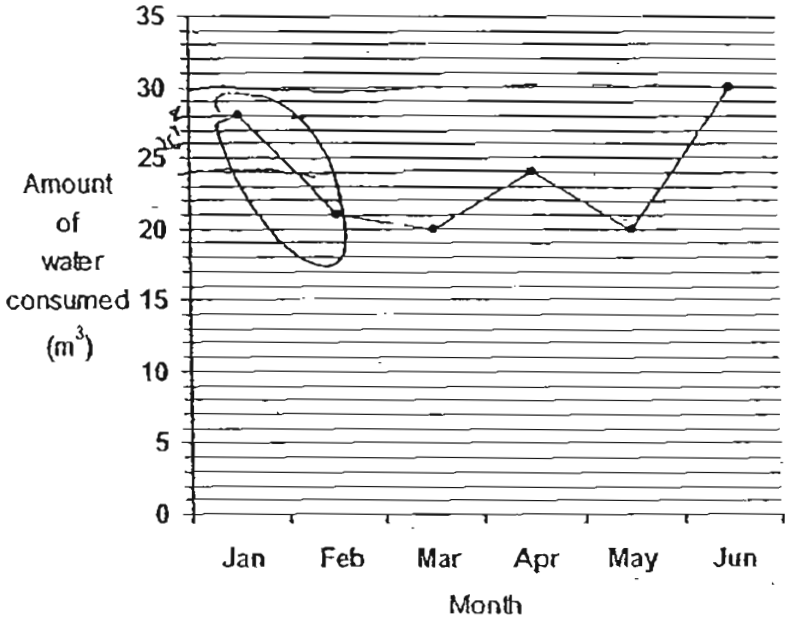
22) The line graph below shows the amount of water consumed by Rajah's family from January to June.



What was the largest decrease in water consumption?

Ans: _____ m^3

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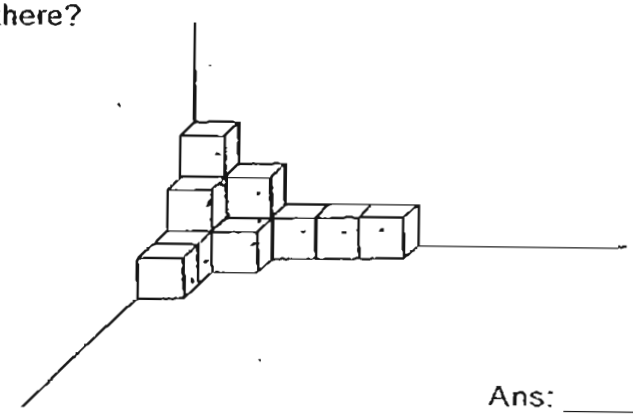
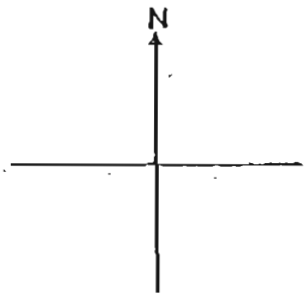
23) Cubes of the same size are stacked in the corner of a box as shown. How many cubes are there?



Ans: _____

135

24) John is facing South now.
Which direction will he face if he makes a 225° anti-clockwise turn?



Ans: _____

---

25) Tom jogged 2 km in 10 minutes. What was his average speed in km/h?

Ans: _____ km/h

Total mark for questions 16 to 25 ____/10

Questions 26 to 35 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. [20 marks]

---

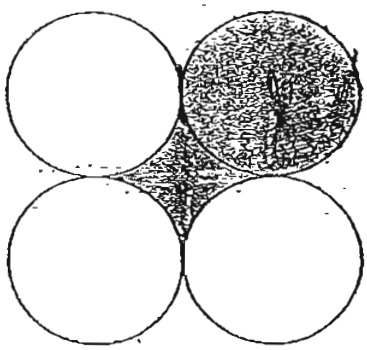
26) What is the next number in this sequence?

2, 6, 12, 20, 30, _____ , 56

Ans: _____

---

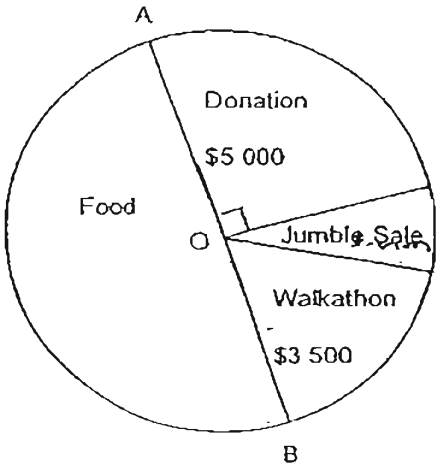
27) The figure is made up of 4 identical circles of radius 7 cm. Find the shaded area. (Take $\pi = \frac{22}{7}$)



Ans: _____ cm^2

4

28) Types of Activities in a Fund-raising Project

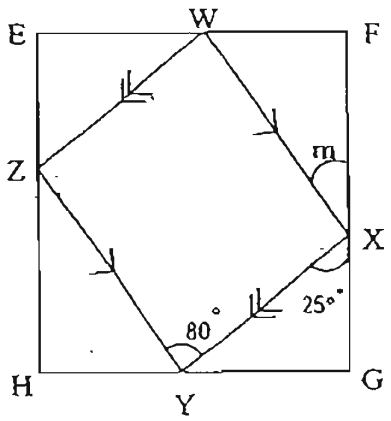


In the pie chart above, half of the money collected was from the sales of food. What percentage of the amount collected was from the jumble sale?

Ans: _____ %

---

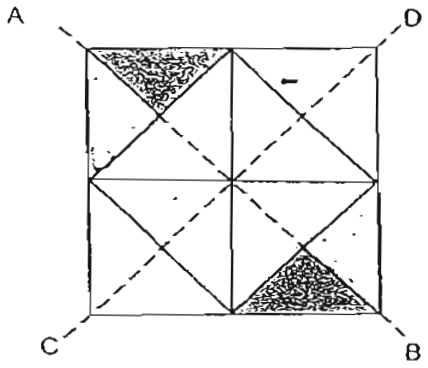
29) In the following figure, not drawn to scale, EFGH is a rectangle and WXYZ is a parallelogram. Find ∠m .



Ans: _____ °

4

30) The square below consists of 16 identical triangles. Shade 2 more triangles to complete the figure which has the dotted lines AB and CD as lines of symmetry.



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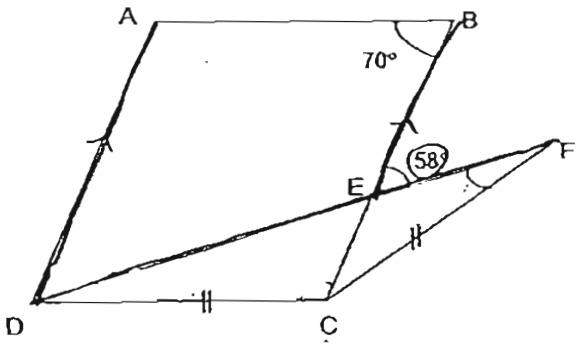
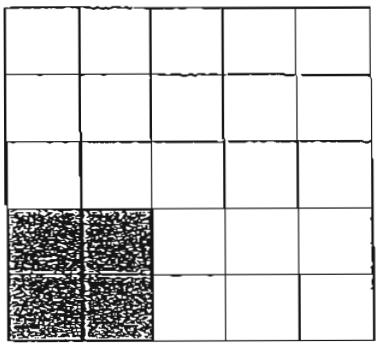
31) The figure below is not drawn to scale. ABCD is a parallelogram and DFC is an isosceles triangle. DEF is a straight line. Find $\angle DF\overline{C}$.



Ans: _____°

4

32) How many more squares should be shaded such that the ratio of the number of shaded squares to the number of unshaded squares is 2 : 3 ?



Ans: _____

---

33) A rectangle is 10 cm long and 8 cm wide. Its area is decreased by 20% such that the new figure is a square. What is the area of this square?

Ans: _____ cm^2

4

34) When Ravin was 12 years old, his father was 42 years old. His father is twice as old as he is now. How old is his father now?

Ans: _____ years

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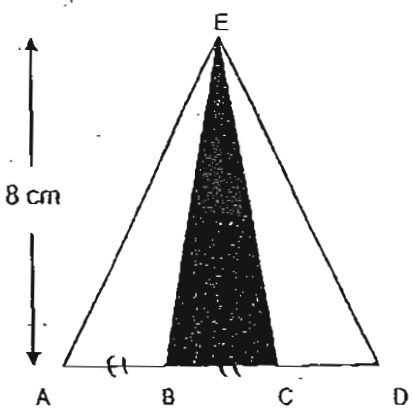
35) In the triangle ADE below, AD is 6 cm. AB = BC = CD. Find the shaded area.



Ans: _____ cm^2

4

For questions 36 to 48, 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 the brackets [ ] at the end of each question or part-question. [50 marks]

---

36) The entrance fee to an amusement park was \$4.50 for an adult and \$2.50 for a child. Mr Lee took some children to the park and paid a total of \$19.50 as entrance fee. How many children did he take to the park?

Ans: _____ [3]

---

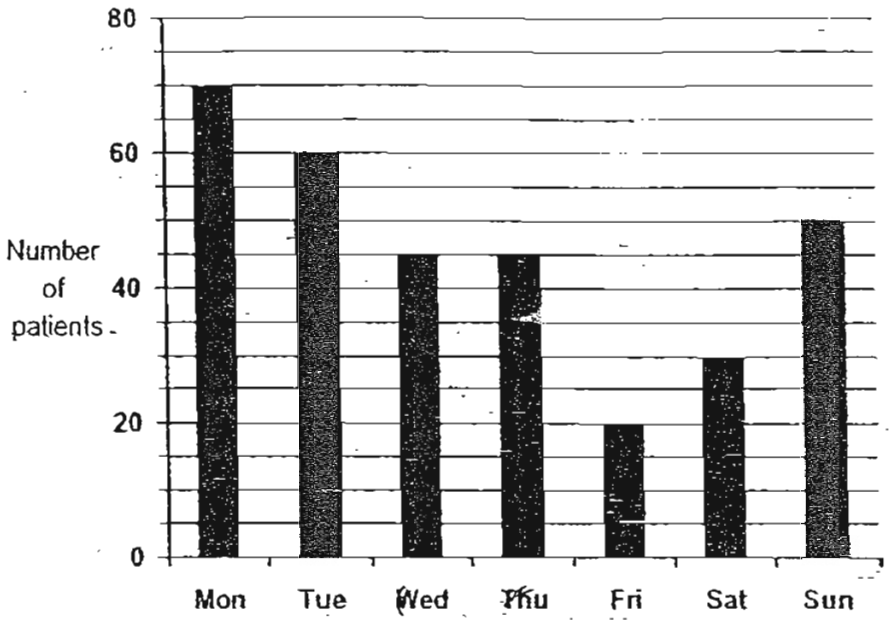
37) The rectangle is divided into 4 parts. Each part has a different area. Find the area of X.

8 cm^2	10 cm^2
X	15 cm^2

Ans: _____ [3]

6

38) The graph below shows the number of patients who visited a clinic during a certain week.



(a) Find the total number of patients who visited the clinic on Wednesday and Thursday.

(b) There were 40% fewer patients on Saturday than on _____.

Ans: (a) _____ [1]

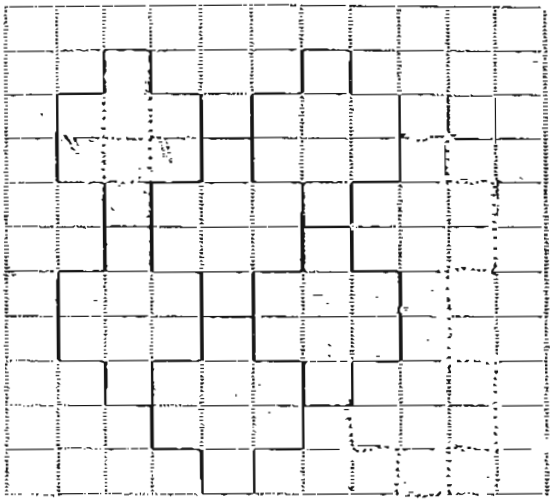
(b) _____ [2]

143

3

143

39) (a) Shade the unit shape in this tessellation. [1]
(b) Extend this tessellation with two more unit shapes. [2]



40) A bottle of cooking oil weighs 2 kg. A hawker uses 8 such bottles in 4 days. If he uses the same amount of oil every day, how many 5-kg tins of cooking oil will he use in 10 days?

Ans: _____ [3]

6

41) Ali had y stamps. His father gave him 20 more stamps. He then shared all his stamps equally with his 2 brothers.

(a) How many stamps did each boy get in terms of y ?

(b) If $y = 28$, how many stamps did each boy get?

Ans: (a) _____ [1]

(b) _____ [2]

---

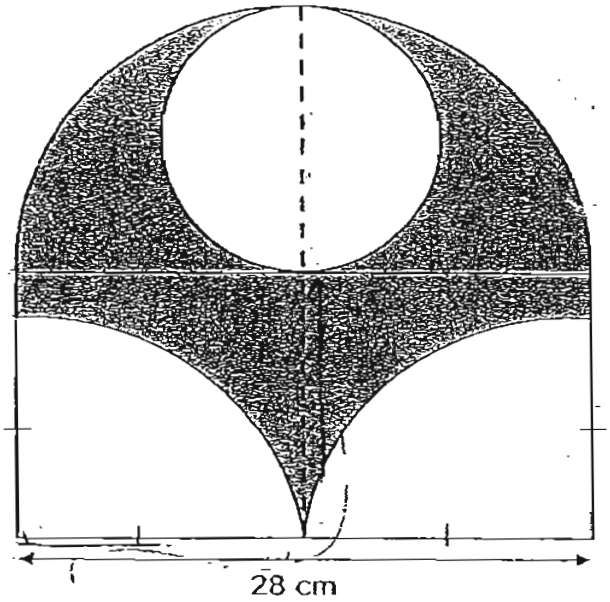
42) Mrs Lim bought a total of 120 apples and oranges in the ratio of 3 : 5 .
After she gave away an equal number of each type of fruits, the ratio of the number of apples to the number of oranges left is 3 : 8 .
How many apples does she have now?

Ans: _____ [4]

145

7

43) The figure below is made up of a semi-circle and a rectangle.
Find the area of the unshaded region. (Take $\pi = \frac{22}{7}$)



Ans: _____ [4]

44) Cynthia has 32 English and Chinese books. $\frac{4}{5}$ of the English books and $\frac{3}{4}$ of the Chinese books are fiction books. She has a total of 25 fiction books. How many English fiction books are there?

Ans: _____ [4]

4

45) An empty tank was filled with water from two taps. Tap A could fill the tank completely in 2 hours and Tap B could fill it completely in 6 hours. Tap A was turned on first and Tap B was turned on 20 minutes later.

(a) What fraction of the tank was filled with water after 20 minutes?

(b) How long did it take to fill the rest of the tank completely with water?

Ans: (a) _____ [1]

(b) _____ [4]

5

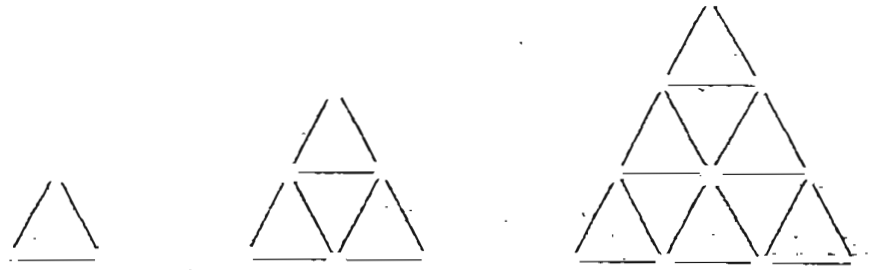
46) At 8.30 a.m., Tom drove from Town P to Town Q at an average speed of 80 km/h. After driving $\frac{2}{5}$ of the journey for 4 hours, he passed Paul who was travelling along the same road in the opposite direction. Paul was travelling at a speed which was 20 km/h slower than Tom. At what time did Paul leave Town Q?

Ans: _____ [5]

14 9

5

47) Ahmad formed the following patterns using toothpicks



Pattern 1 Pattern 2 Pattern 3

(a) How many toothpicks would Ahmad need to form Pattern 4 ?

(b) If the last pattern formed by Ahmad had 165 toothpicks, what was the pattern number?

Ans: (a) _____[2]

(b) Pattern_____[3]

5

48) Siti had some red and blue marbles. 80% of the marbles were red. After she bought another 63 red marbles and 46 blue marbles, 75% of the marbles were red. Find the total number of marbles she had at first.

Ans: _____ [5]

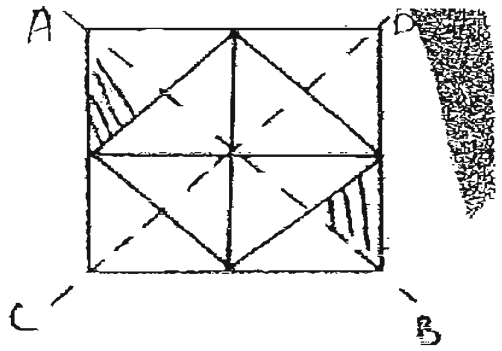
5

End-of-Paper

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

16. 20
17. 3250m
18. $\frac{1}{4}$
19. 4
20. 800mℓ
21. 7
22. $7m^3$
23. 13 cubes
24. NW
25. 12km/hr

26. 42
27. $196cm^2$
28. 7.5%
29. 55°
30. 1.



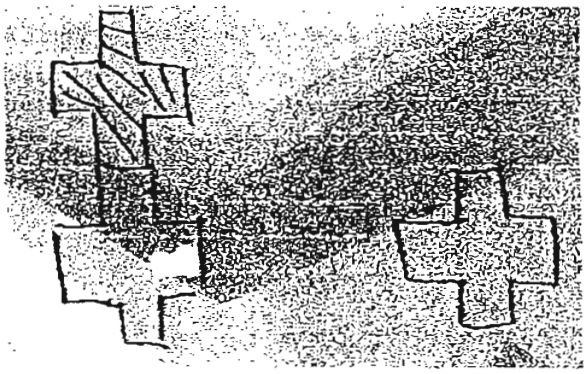
31. 12°
32. 6
33. $64cm^2$
34. 60years
35. $8cm^2$

36. **6 children**

37. **12cm²**

38a. **90**
38b. **Sunday**

39a.
39b.



40. **(8 x 2kg) ÷ 4 = 4kg (1 day)**
10 x 4 = 40
40 ÷ 5 = 8

41a. $\frac{(y+20)}{3}$ **stamps**

41b. **16 stamps**

42. **18**

43. $\frac{22}{7}$ **x 7 x 7 = 154cm²**

$\frac{22}{7}$ **x 14 x 14 x** $\frac{1}{2}$ **= 308cm²**

154cm² + 308cm² = 462cm²

44. **16**

45a. $\frac{1}{6}$
45b. **75 mins**

46. **4.30am**

47a. **30**
47b. **10**

48. **375**