

**Primary Six
Mathematics
Semestral Assessment Two**

Questions 1 to 5 carry one mark each.

For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write it in the space provided.

1. A tailor had $\frac{4}{5}$ m of cloth. He used $\frac{1}{4}$ of it. What fraction of his cloth was left?

- (1) $\frac{11}{20}$
(2) $\frac{1}{5}$
(3) $\frac{3}{4}$
(4) $\frac{3}{5}$

2. $\frac{3}{4}\%$ = _____

- (1) 75
(2) 0.75
(3) 0.075
(4) 0.0075

3. Which one of the following is 4 minutes when rounded off to the nearest minute?

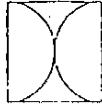
- (1) 3.3 minutes
(2) 3 minutes 30 seconds
(3) 4 minutes 49 seconds
(4) 4.5 minutes

4. Samy had 10¢, 20¢ and 50¢ coins. He bought a can drink that cost 80¢ from a vending machine. What is the smallest possible number of coins he could have used to pay for his drink?

- (1) 8
(2) 2
(3) 3
(4) 4

5. The following diagrams are identical squares with identical quadrants arranged in different ways. In which one of the following squares is the shaded area the largest?

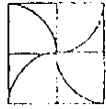
(1)



(2)



(3)



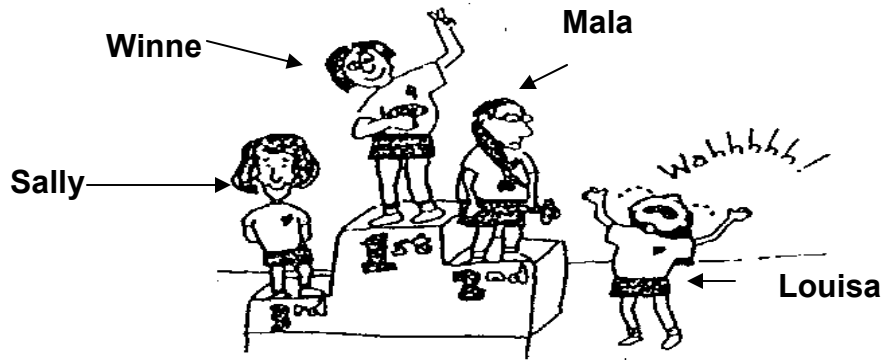
(4)



6. A group of children formed a square with 8 of them on each side. How many children were there in the group?

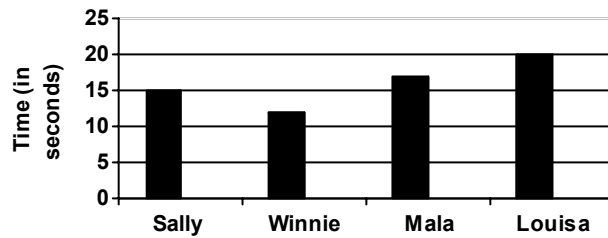
- (1) 28
- (2) 32
- (3) 36
- (4) 64

7. The following picture shows the winners of a certain race.

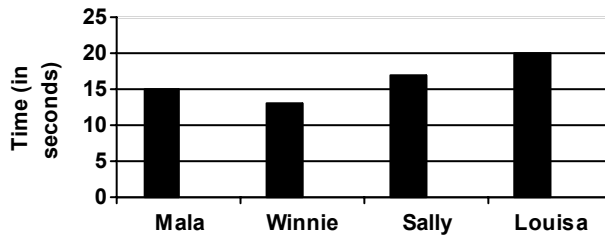


Which one of the following graphs shows the result of the race correctly?

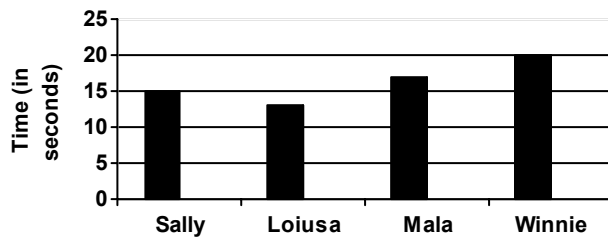
(1)



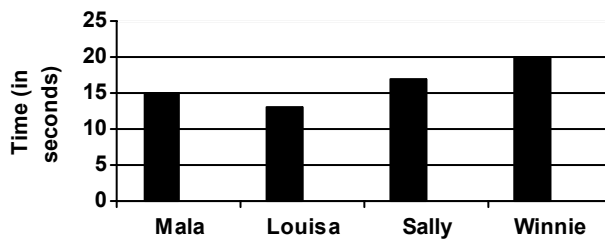
(2)



(3)



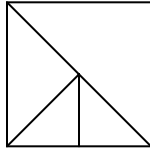
(4)



8. Sally is 7 years old and she is 3 years older than Mary.
What will be their total age in p years' time?

- (1) $(17+p)$ years old
- (2) $17p$ years old
- (3) $11p$ years old
- (4) $(11+2p)$ years old

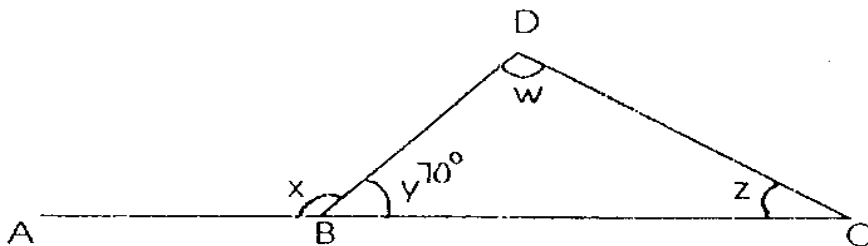
9.



The square above is made up of triangles of three different sizes – small, medium and large. Each small triangle is half the size of the medium triangle and the large triangle is twice the size of the medium one. We can use the triangles to represent all the following fractions of the square except one of the them. Which one is it?

- (1) $\frac{1}{2}$
- (2) $\frac{2}{3}$
- (3) $\frac{3}{4}$
- (4) $\frac{5}{8}$

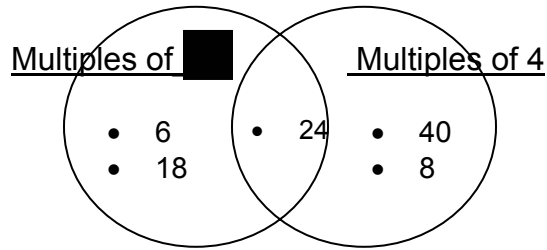
10.



In the diagram above, not drawn to scale, ABC is a straight line.
 $\angle x = 110^\circ$ and twice $\angle w$ is equal to thrice $\angle z$, find $\angle z$.

- (1) 22°
- (2) 28°
- (3) 44°
- (4) 66°

Study the Venn diagram below carefully before answering Question 11.



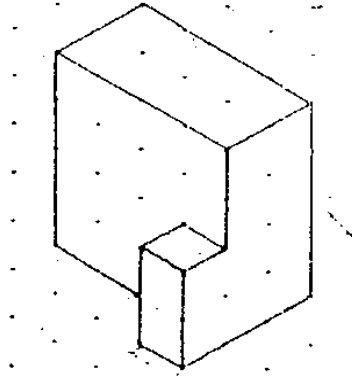
11. X is a number that can only be placed outside the circles. Which one of the following numbers can X definitely be?

- (1) 60
- (2) 2
- (3) 3
- (4) 15

12. The number of boys in morning session is $\frac{3}{5}$ that of the afternoon session. The number of girls in afternoon session is $\frac{3}{7}$ that of the morning session. What is the ratio of the number of boys to the number of girls in the afternoon session if the total number of pupils in the two sessions is the same?

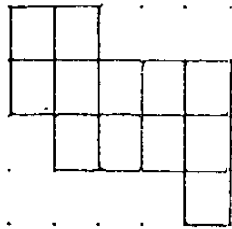
- (1) 5 : 3
- (2) 5 : 7
- (3) 10 : 3
- (4) 4 : 5

13. Four pupils were shown the diagram of the solid figure below and asked to draw what they think the figure would look when viewed from the top.

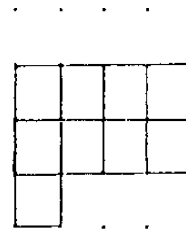


Which one of the following is definitely wrong?

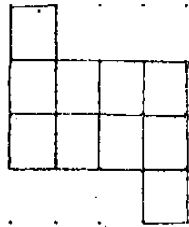
(1)



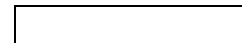
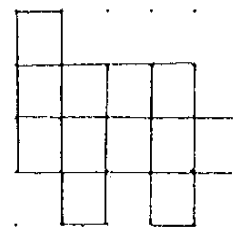
(2)



(3)



(4)



Baljit drove at a uniform speed from Garden City to Lion City which were 320km apart. Study the following notes that he had written about his journey before answering Question 14.

10 a.m.

The rain has stopped. It is nice to travel in this kind of weather. I realized I am only 260 km away from Lion City.

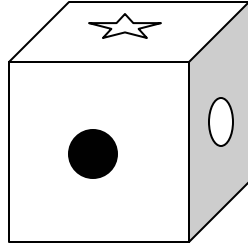
12 noon

I have traveled 220 km since I started. I have decided to take my lunch only upon my arrival at Lion City.

14. At what speed was Baljit driving?

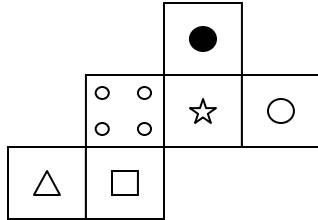
- (1) 20 km/h
- (2) 40 km/h
- (3) 80 km/h
- (4) 110 km/h

15.

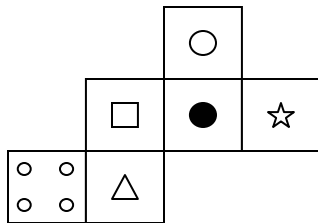


The above cube is made from one of the following nets. Which one is it?

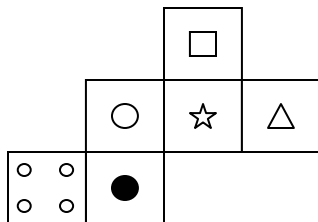
(1)



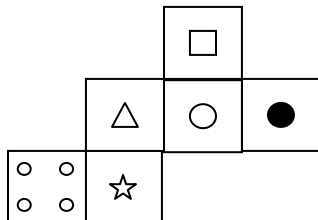
(2)



(3)



(4)



Questions 16 to 35 carry 1 mark each. For each question, write your answer in the answer space provided.

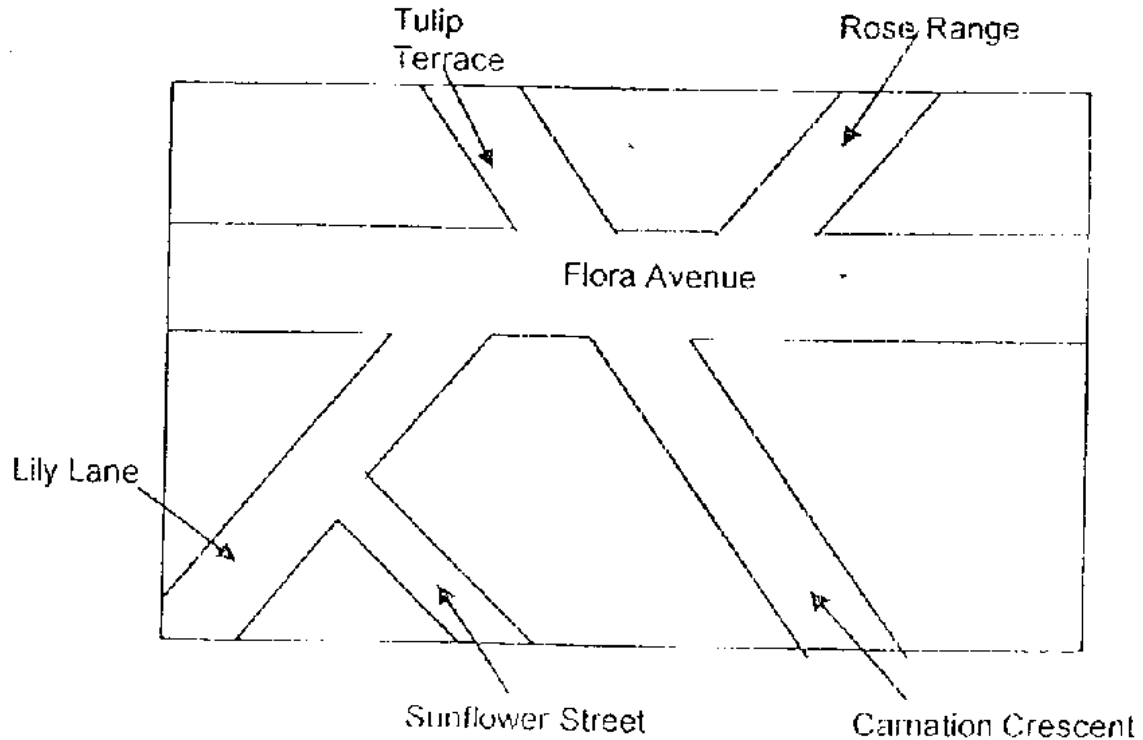
16. Write down the smallest 6-digit number.

17. $3 \frac{7}{8} \approx$ _____ tenths

18. Susan has a bag of 5-cent coins. They are worth \$12.
How many coins has she in the bag?

19. $\frac{2}{5}$ of the pupils in a club are girls. What is the ratio of the number of boys to that of the girls in the club?

20. There are 8 bits in one byte and 1024 bytes in one kilobyte.
How many bits are there in one kilobyte?



21. Study the map above and name two roads that are parallel to each other.

22. 7 pears for \$ 3. How many such pears can you buy with \$15?

23. During an election, for every pupil who voted for candidate A, 4 voted for candidate B. What percentage of the votes did candidate B receive?

24. Work out the following and leave your answer to one decimal place.

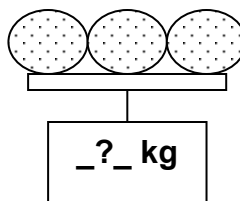
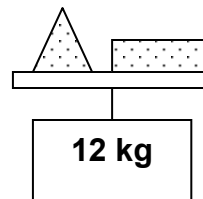
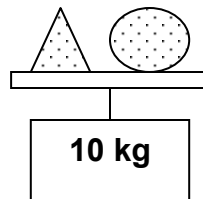
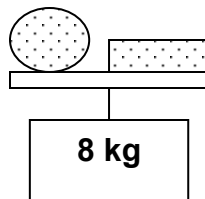
$$8 \overline{) 23.76}$$

The table below shows the charges for parking a car at a particular car park. Study it carefully and answer Question 25.

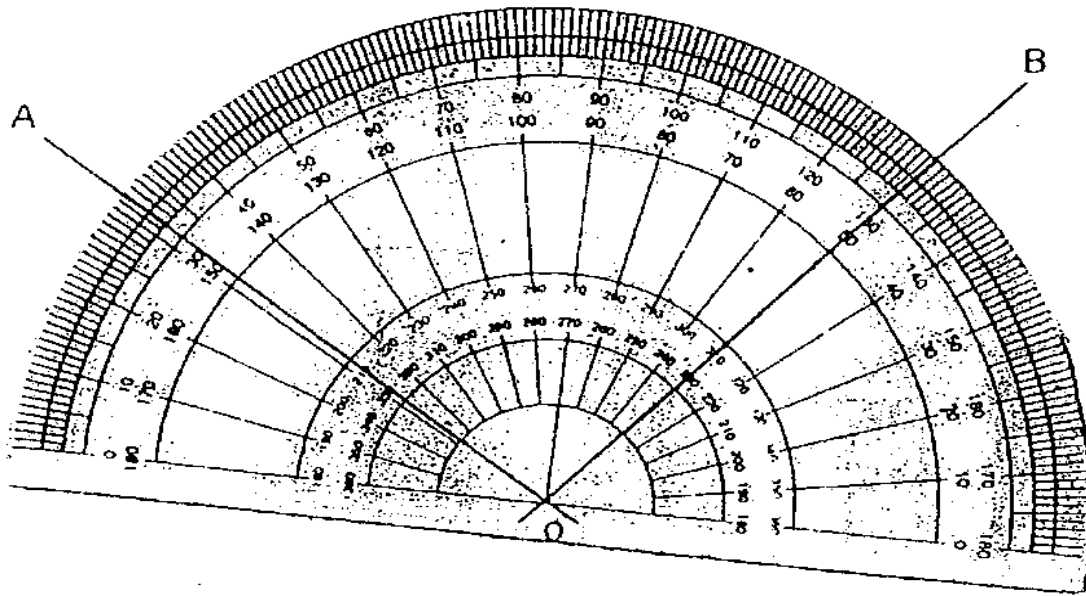
| | |
|---|--------|
| 1 st hour | \$2 |
| Every Subsequent ½ hour or part thereof | \$1.50 |

25. A driver paid \$6.50 for parking his car at this car park. How long could he have parked here at most?

26. Study the diagram below carefully before finding the missing weight of the three circular objects.

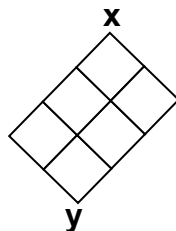


27. $\angle AOB =$ _____ $^{\circ}$

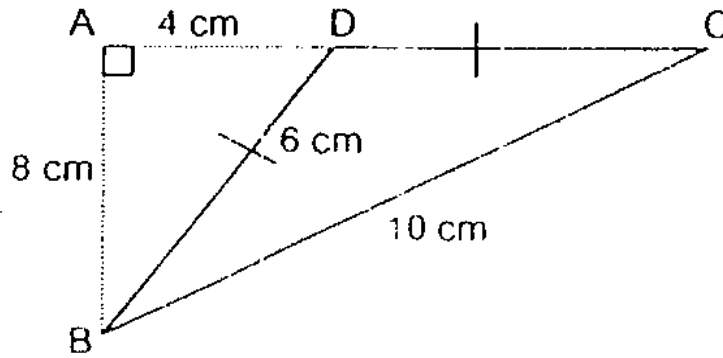


28. A car travels 15m in one second. What is its speed in km/h?

29. A tap can fill a tank completely in 20 minutes. What percentage of the tank is filled by the tap in 1 minute?

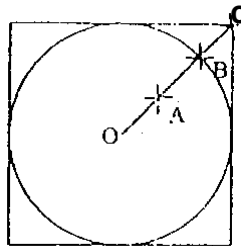


30. How many different ways can water flow if it can only move downwards from X to Y?



31. In the diagram above, not drawn to scale, triangle BCD is an isosceles triangle and $AC \perp AB$.
 Given that $AD = 4$ cm, $DB = 6$ cm, $AB = 8$ cm and $CB = 10$ cm, find the area of triangle BCD.

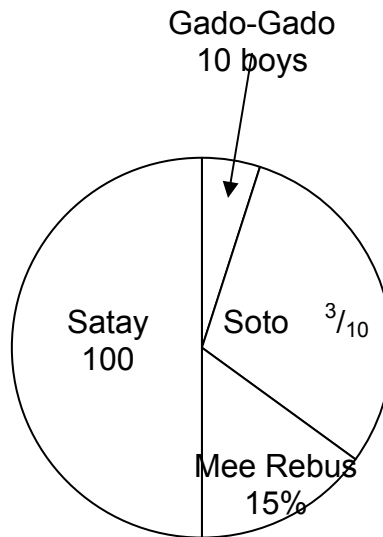
32. The diagram above shows a circle enclosed within a square.
 Given that O is the centre of the circle and that $OA = AB = BC = 3$ cm, find the Perimeter of the square.



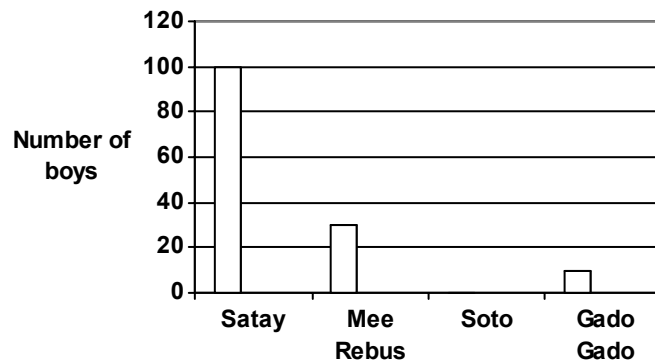
33. A driver took 3 hours to drive 144 km. What was his average speed?

34. A girl received $\frac{2}{3}$ the total sum of money received by her two brothers. If her brothers received an equal amount of the money each, what percentage of the total sum of money did each brother receive?

A group of boys was asked to name their favourite Malay food. The pie-chart below shows the result.



35. When the information from the pie chart was transferred to a bar graph, some information was left out. Please complete the bar graph below so that the missing information can be included.

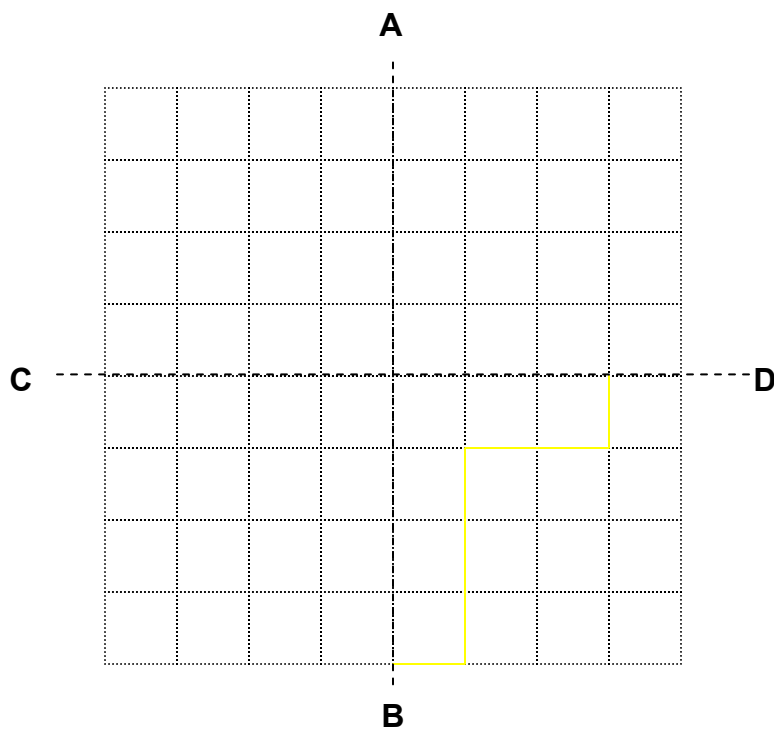


For questions 36 to 50, show your working clearly in the space below each question and write your answers in the space provided.

36. Muthu spent thrice as much money as Melvin.
If Muthu spent \$60, how much did the two of them spend in all? [2]
37. The perimeter of a square pond is $12p$ m. A fence is to be built one metre away from the sides of the pond.
Find the total length of the fence needed. [2]

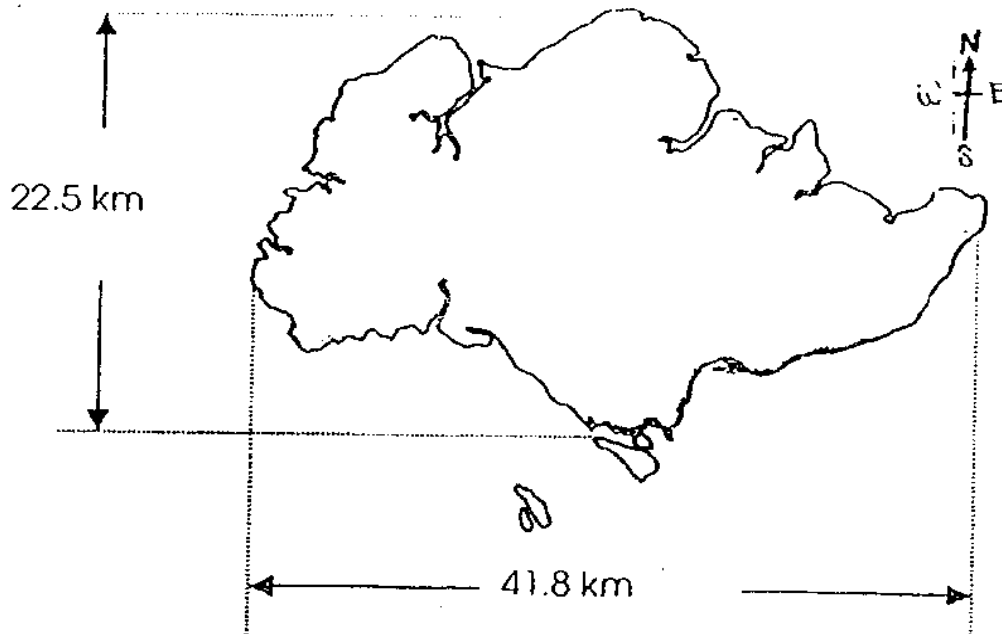
38. Amy had 38 coins which added up to \$12.70. If the coins that she had consisted of only 20¢ and 50¢ coins, how many of her coins were 50¢ coins? [3]

39. In the figure below, AB and CD are the lines of symmetry of an incomplete figure.
- Complete the figure in the space below. [2]
 - Can any more lines of symmetry be added to your completed figure? [1]



40. Red marbles are sold in packets of 8 while blue marbles are sold in packets 6. Bala bought an equal number of red and blue marbles. What is the **smallest** possible number of marbles that he could have bought in all?
[3]
41. The Maths Club printed 78 T-shirts for its members at \$6.80 each. If it had the T-shirts printed in Malaysia, it would have received 52 more T-shirts for the same amount of money spent. How much cheaper was it to print one such T-shirt in Malaysia?

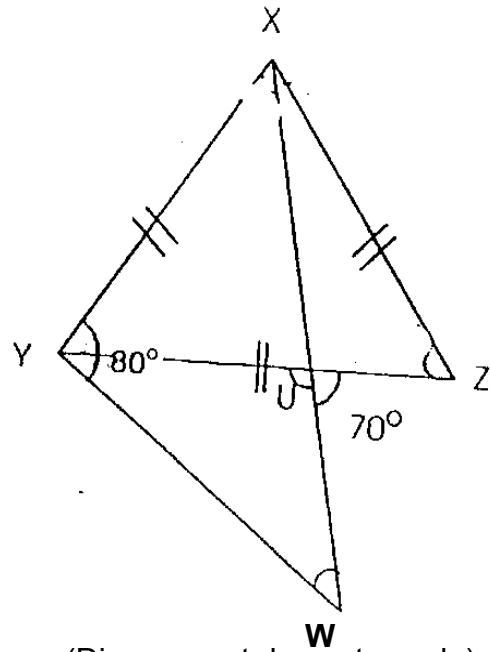
42.



A man traveled by taxi from the eastern to the western end of Singapore. How much did he have to pay for his taxi fare based on the rates shown below? [4]

| | | |
|----|---|---------|
| a. | The first 1 km or less | \$ 2.40 |
| b. | Every 250 metres thereafter or less up to 10km | \$ 0.10 |
| | Every 200 metres thereafter or less after 10 km | \$ 0.10 |

43. In the diagram below, not drawn to scale, XYZ is an equilateral triangle. Given that $\angle XYW = 80^\circ$ and $\angle ZUW = 70^\circ$, find $\angle YWX$. [4]

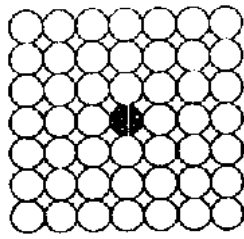


44. There were 20 more pupils in bus A than in bus B. 10 pupils were then transferred from bus B to bus A. It was then found that there were $\frac{3}{5}$ as many pupils in bus B than in bus A. How many pupils were there in all? [4]

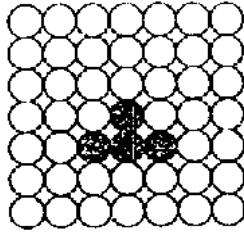
45. Mrs Yong is a member. During the sale, she paid \$54.40 for a dress. What was the usual price for the dress she bought? [4]



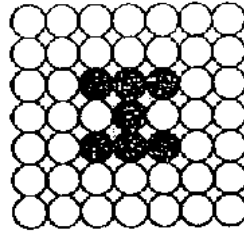
46. The following patterns can be made by shading some circles. Study them carefully.



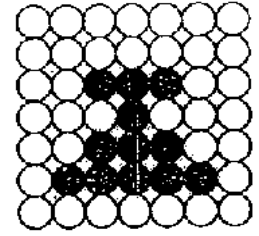
Pattern one



Pattern two

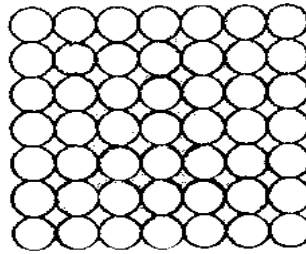


Pattern three



Pattern four

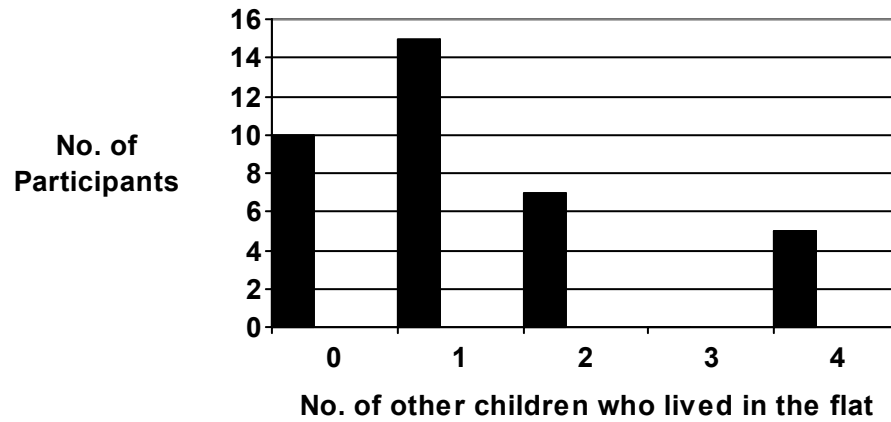
- a) Shade the circles to show how pattern six will appear. [2]



Pattern six

- b) How many circles must be shaded in pattern twelve? [2]

A child from every unit in a block of flats was asked to state the number of children who live with them in the same flat. The following graph shows the results of the survey. Study it carefully and answer Question 47.

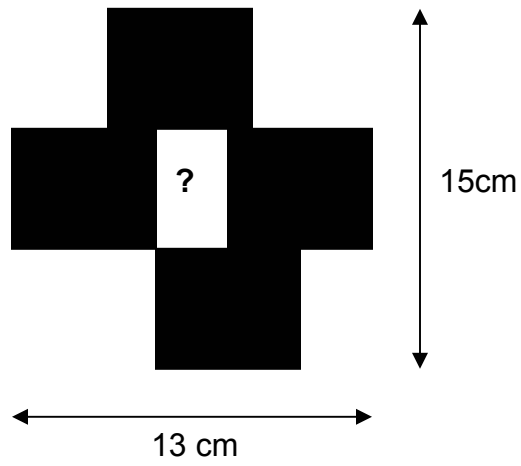


47. a) How many children were involved in the survey? [1]
- b) How many children lived in the block of flats at the time of the survey? [3]

48. Ann, Betty and Carrie had 144 stamps altogether. Ann gave some of her stamps to Betty and Betty's stamps were doubled. Then Betty gave some of her stamps to Carrie and Carrie's stamps were doubled. As a result, the 3 girls had as equal number of stamps each. How many stamps had Ann at first? [5]

49. Alice and Bala left Town X at the same time and traveled at uniform speeds towards Town Y. When Alice reached Town Y, Bala was still 80 km away, He reached Town Y 40 minutes later. If Bala took 2 h to reach Town Y, find Alice's speed. [5]

50. Four identical square tiles were arranged in such a manner that a rectangular gap was formed in the middle as shown in the diagram below. Find the area of the rectangular gap. [5]



End of Paper