Name _____(   )

Class: Primary 6_____

CHIJ ST NICHOLAS GIRLS' SCHOOL

Primary 6

Preliminary Examination 2 – 2006

Mathematics
Booklet A

12th September 2006

Duration of Paper: 2 hours 15 minutes

Do not open the booklet until you are told to do so.
Follow all instructions carefully.

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 correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS).

<div align="right">(20 marks)</div>

1) Find the value of $86 - 48 + 6 \times 10 + 6 \div 2$

    1) 71   2) 101

    3) 223   4) 443

2) What is the sum of 5 tenths and 64 hundredths written as a decimal?
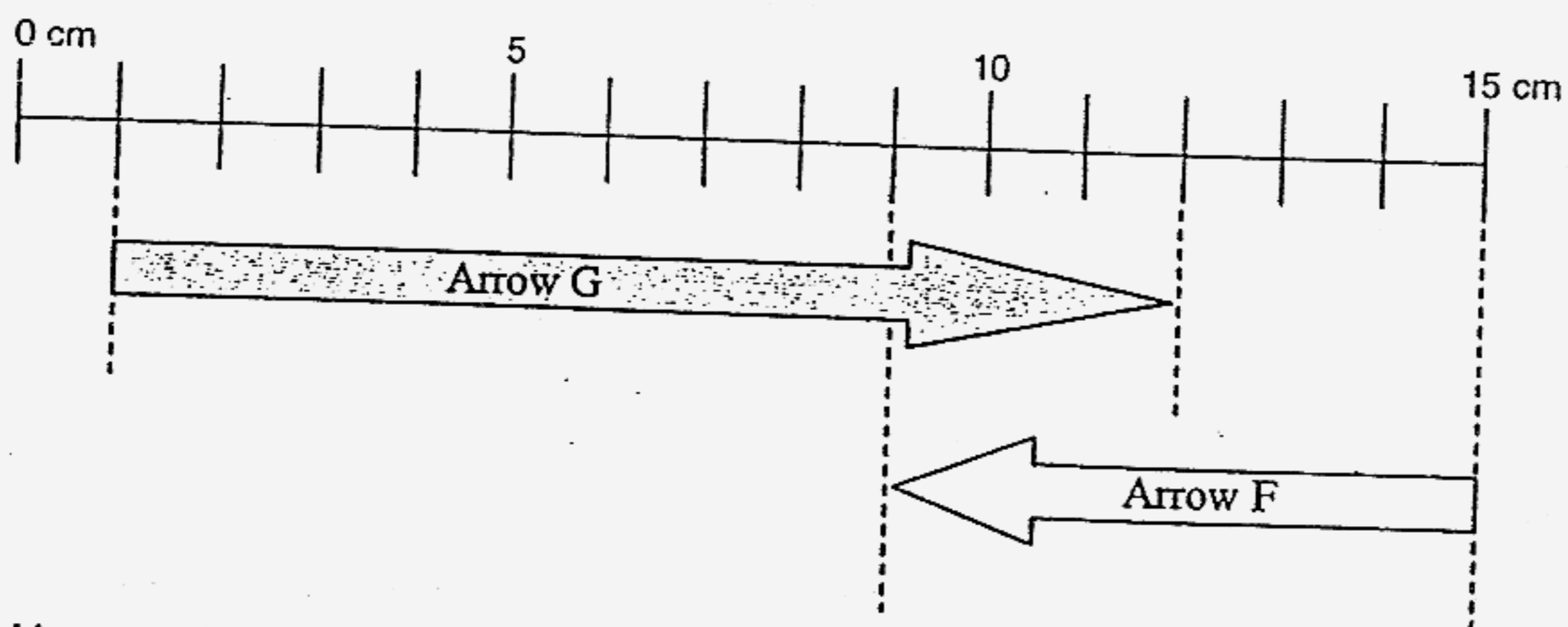
    1) 0.564   2) 0.69

    3) 1.14   4) 50.064

3) The figures below show the measurements of Arrow G and Arrow F.

How much longer is Arrow G than Arrow F?

    1) 6 cm   2) 5 cm

    3) 3 cm   4) 4 cm

4) Mrs Chen bought 3 kg of flour. She used 1.8 kg. What fraction of the flour had she left?

1) $\dfrac{2}{3}$

2) $\dfrac{2}{5}$

3) $1\dfrac{2}{3}$

4) $1\dfrac{1}{5}$

5) Jonathan spent $ 7.80 on some stamps. 15 of them were worth 22¢ and the rest were worth 50¢. How many stamps did he buy in all?

1) 24

2) 15

3) 9

4) 6

6) Jia Ping bought a t-shirt and a pair of shoes for a total of $102. The t-shirt cost $30 less than the pair of shoes. How much did she pay for the pair of shoes?
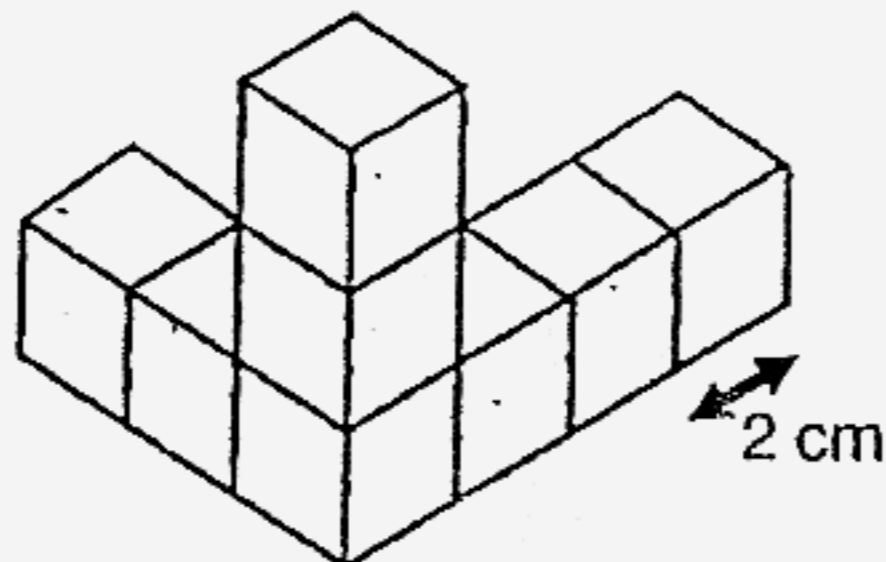
1) $72

2) $66.

3) $42

4) $36

7) The figure below is made up of identical cubes. Find the volume of the figure.

2 cm

1) 8 cm³

2) 16 cm³

3) 32 cm³

4) 64 cm³

2

8) The pie chart below shows the programmes Lisa watched for a total of 3 hours.

How long did she spend watching the Sports programme?

1) 60 min

2) 40 min

3) 30 min

4) 20 min

9) The figure below is not drawn to scale. ABCD is a rhombus. Find $\angle w$.

1) 45°

2) 56°

3) 68°

4) 112°

3

10) Chin Chin Provision Shop charges $0.60 for every $\frac{1}{2}$ kg of goods delivered. Mrs Gopal bought $10\frac{1}{2}$ kg of goods. How much does she need to pay for her purchase?

    1) $12.60   2) $10.60

    3) $6.60   4) $6.30

11) Mohan has thrice as much money as Dennis. Ramesh has $60 less than half of what Mohan has and $140 more than Dennis. How much money does Mohan have?

    1) $600   2) $720

    3) $1 200   4) $1 320

12) One durian costs 4 times as much as one honeydew. Mr. Rama has just enough money to buy 2 durians and 2 honey dews. However, he wants to buy only honeydews. What is the maximum number of honeydews he can buy with the money he has?
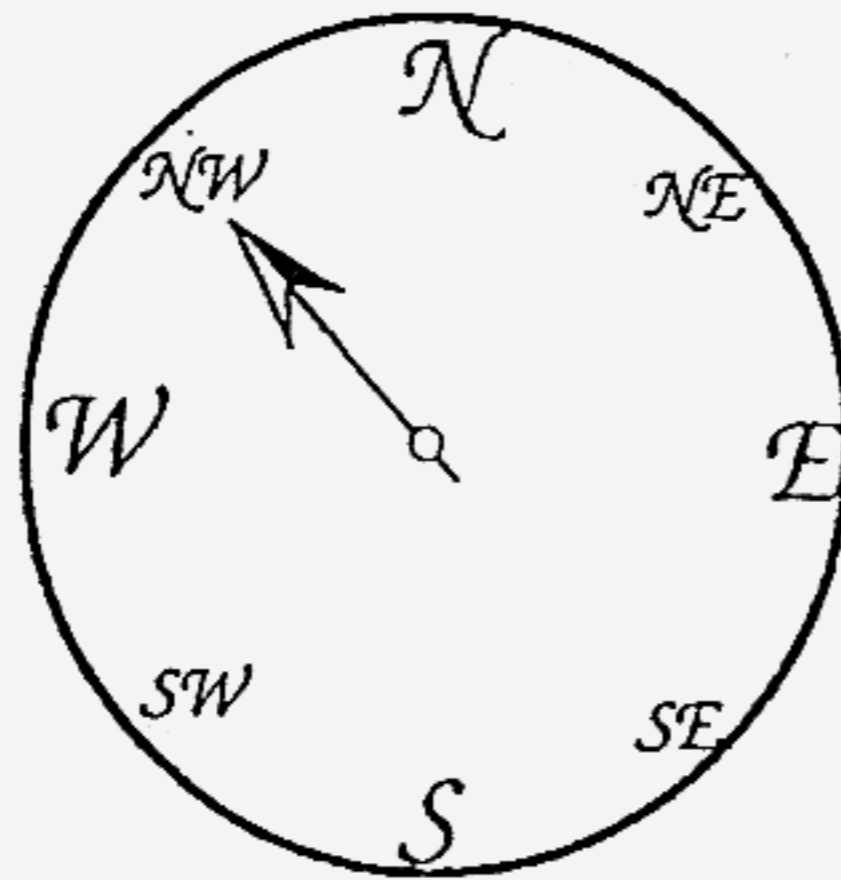
    1) 12   2) 10

    3) 8   4) 4

13) The figure shows a circle enclosed in a rectangle. The area of the shaded portion is 386 cm². Find the ratio of the breadth of the rectangle to its length. (Take π to be $\frac{22}{7}$)

14 cm

30 cm
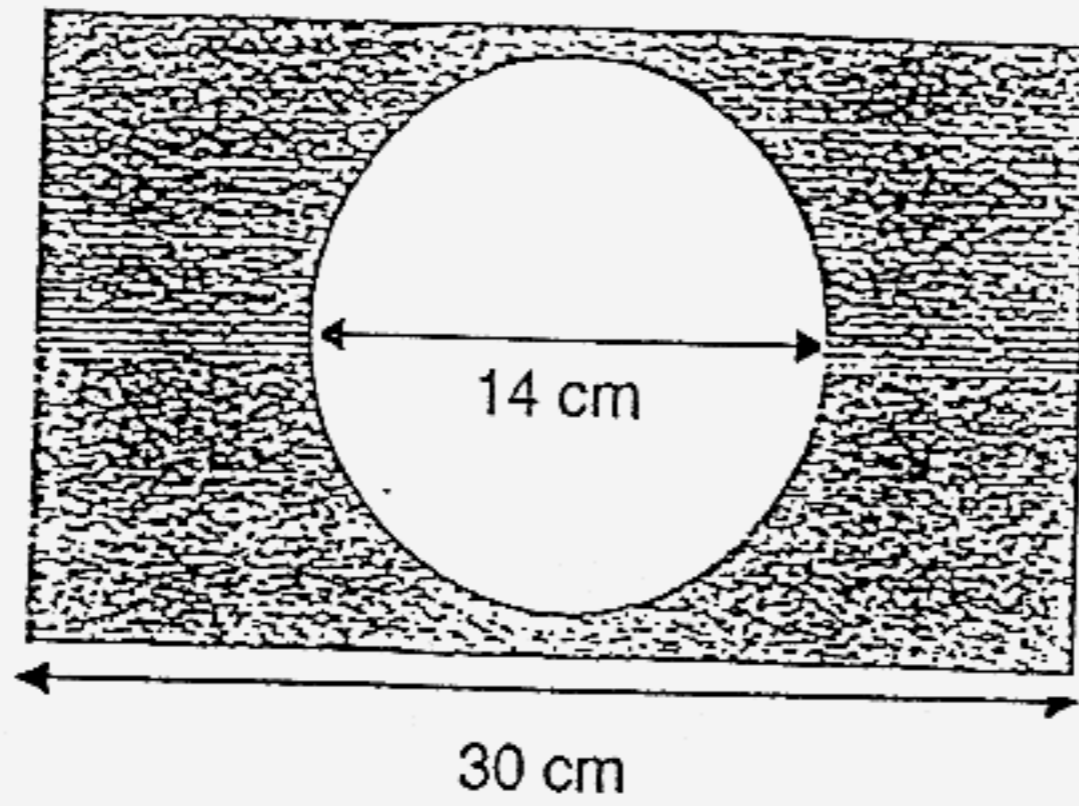
1) 7 : 10   2) 6 : 5

3) 3 : 10   4) 3 : 5

14) The figure below shows a compass pointing to Northwest. In which direction will it point to if it turns 315° anti-clockwise?

1) North   2) Northeast

3) West   4) Southwest

15) Julian left Singapore at 20 45 to go to Malacca which is 285 km away. If he travelled at an average speed of 75 km/h, at what time did he arrive at Malacca?

1) 1.33 a.m.   2) 11.53 a.m.

3) 12.25 a.m.   4) 12.33 a.m.

15) Julian left Singapore at 20 45 to go to Malacca which is 285 km away. If he travelled at an average speed of 75 km/h, at what time did he arrive at Malacca?

1) 1.33 a.m.

2) 11.53 a.m.

3) 12.25 a.m.

4) 12.33 a.m.

Questions 16 to 25 carry 1 mark each. For each question, write your answers in the spaces provided. Give your answers in the units stated.

(10 marks)

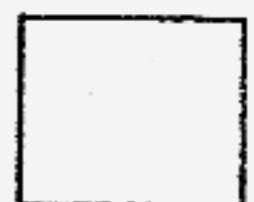16) Find the average of 900 m, 0.6 km and 3.9 km.

Ans : _____ m

17) A movie lasted for 2 hours and 55 minutes. It <u>ended</u> at 10.30 p.m.. At what time did the movi<u>e start</u>?

Ans : _____

18) The figure below is the net of a cube. Which one of the faces, 1, 2, 3, 4 or 5 is the base of the cube?

1			
2	3	4	5
			Top

Ans : _____

7

www.misskoh.com
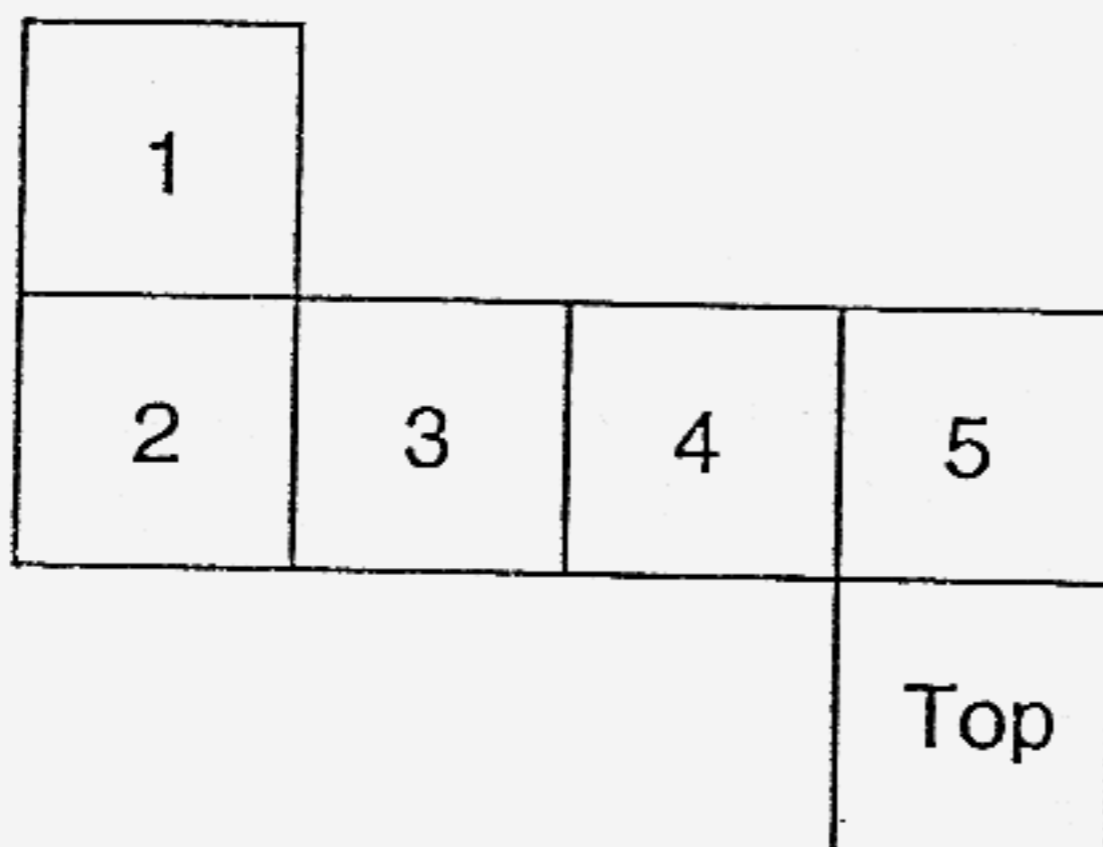
19) Meena has twice as many $2 notes as $5 notes. If she has a total of $225, how many $2 notes does she have?
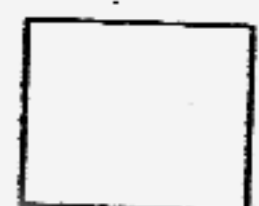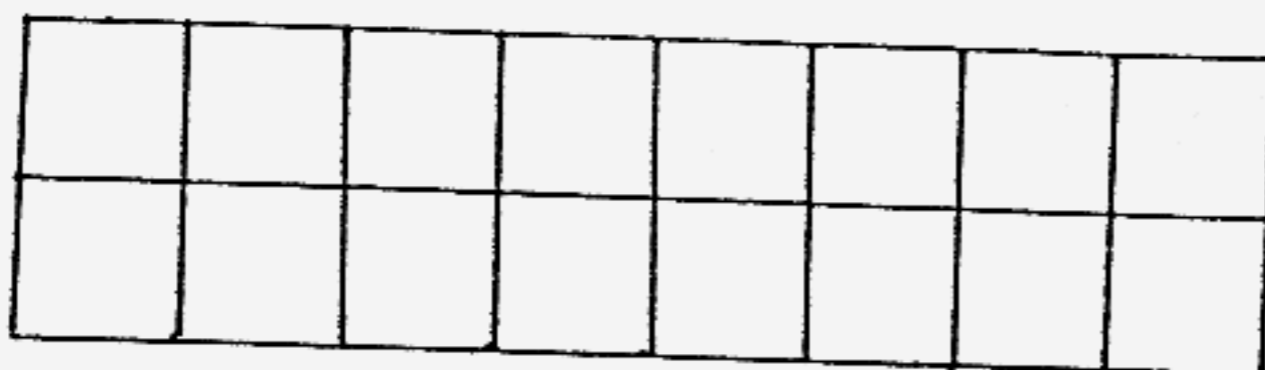
Ans : _____

20) The sales of exercise books in a bookshop from Monday to Thursday were 15, 17, 15 and 9 respectively. There was no sales of exercise books from Friday to Sunday. What was the average sales of exercise books for the entire week?

Ans : _____

21) $\frac{2}{5}$ of Paul's stamps is equal to $\frac{4}{7}$ of Joe's stamps. What is the ratio of the number of Paul's stamps to that of Joe's stamps?

Ans : _____

22) In the figure below, how many squares must be shaded so that the ratio of the number of shaded squares to the number of unshaded squares is 5 : 3?

8   Ans : _____
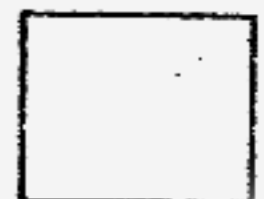
23) Express $\frac{3}{4}$ % as a fraction.

Ans : _____

24) 80 story books were borrowed from the National Library on Sunday. On Monday, 56 books were loaned out. What was the percentage decrease in the number of books borrowed from the library?

Ans : _____ %

25) Connie has 37 beads. She puts m beads into each of the 6 boxes. She gave the remaining beads to her sister. Express the number of beads that her sister received in terms of m.

Ans : _____

9

www.misskoh.com

26 to 35 carry 2 marks each. Write your answers in the spaces provided.
Give your answers in the units stated.

Do not
write in
this space.

(20 marks)

26) Mr Pang is 49 years old. His son is 24 years younger than he is. When his son is 30 years old, how old will Mr Pang be?

Ans : _____

27) Arrange the four letters, A, B, C and D given below in ascending order of their values.

A : $\dfrac{2}{3} - \dfrac{2}{11}$

B : $\dfrac{2}{5} - \dfrac{2}{11}$

C : $\dfrac{2}{7} - \dfrac{2}{11}$

D : $\dfrac{2}{9} - \dfrac{2}{11}$

Ans : _____, _____, _____, _____

28) The table below shows the price and the number of Christmas cards on sale at ABC bookstore.

Price	Number of cards per packet
$ 18.20 for every 5 packets	20

Mr Reeve needs to buy 600 cards for his clients during Christmas. How much money did he have to pay for the cards?

Ans : $_____

29) The table shows the parking rates at Smiley Carpark.
How much does Ivan have to pay if he parks his car for 1 h 40 min?

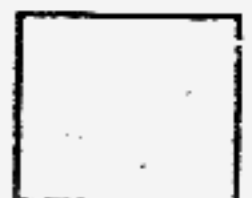| Time	Charges
First $\frac{1}{2}$ hour	$ 0.90
Subsequent $\frac{1}{2}$ hour or part thereof	$ 0.50

Ans :$ _____

11

30) A supermarket is having a promotion. The price of an apple is $0.55. For every 8 apples bought, one will be given free. If Anita paid $8.80 for the apples, how many apples did she have in all?

Ans :_____

31) In the figure below, not drawn to scale, ABCD is a square and AEFG is a rhombus. Find ∠ w.

Ans : _____ °

32) Last week, Judy worked for a total of 52 hours, 8 hours of which were overtime. If the basic hourly rate is $8 and the overtime rate is $1\frac{1}{4}$ times the basic rate, find her total wages for last week.

Ans : $_____

33) The length and the breadth of a rectangle is in the ratio 13 :12. What fraction of the perimeter is the breadth?

Ans : _____

34) The cost of four digital cameras is 60 % of the cost of a computer notebook. If a digital camera costs $255, what is the cost of a computer notebook?

Ans : $_____

35) Mr Thomson's annual income is $ k. Every month, his expenditure and savings are the same. If he spends $950 every month and saves the rest, how much does he save in a month? (Note: assume that his monthly income is the same)

Ans :$ _____

www.misskoh.com
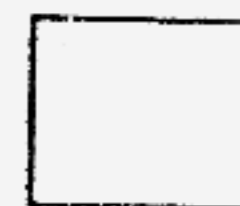
For questions 36 to 48, show your working clearly in the space below each question and write your answers in the space provided. The number of marks available is shown in the brackets ( ) at the end of each question or part-question.

(50 marks)

36) In the space below, draw an <u>isosceles triangle</u> in which PQ = 6 cm, PR = 6 cm and $\angle PRQ = 50°$. The line PQ has been drawn for you.

P   6 cm   Q
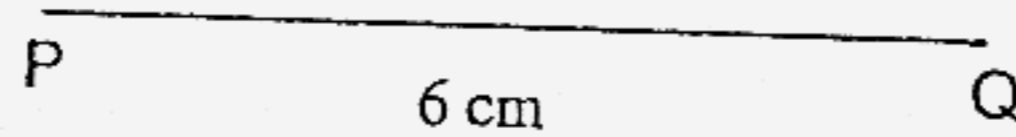
37) The perimeter of a square of side 16 cm is $\frac{4}{5}$ the perimeter of a rectangle. If the length of the rectangle is 3 times its breadth, find the breadth of the rectangle.

Ans : _____(3 m)

14

www.misskoh.com

38) If 3 girls can fold 3 paper cranes in 3 minutes, how many paper cranes can 30 girls fold in half an hour?

Ans : _____ (3 m)

39) The daily sales of candies are shown in the pie chart below.

(a) If 66 grape-flavoured candies were sold, how many candies were sold in all?

(b) How many fewer mint-flavoured candies than chocolate-flavoured candies were sold daily?

Ans : (a) _____(1 m)

(b) _____ (2 m)
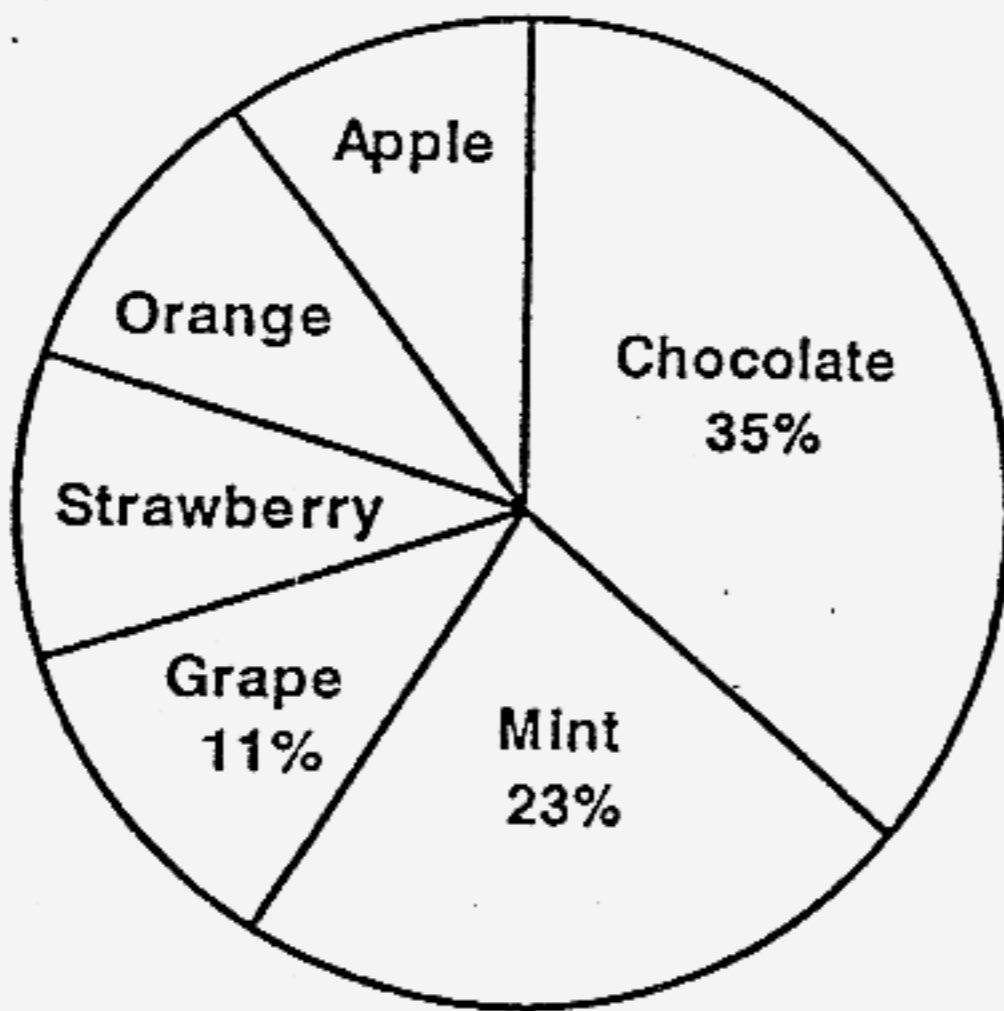
www.misskoh.com

40) Britany bought some stickers. She gave $\frac{6}{15}$ of them to her sister and $\frac{1}{3}$ of the remainder to her brother. Then she shared the rest of her stickers with her 6 friends. What fraction of the stickers did each of her friends receive?

Ans : _____(3 m)

_____

41) At 9.30 a.m., Pete set off from Town Q to Town P at an average speed of 72 km/h. At the same time, Lenny set off from Town P to Town Q at an average speed of 96 km/h. 15 minutes later, they were still 48 km apart. Find the distance between Town Q and Town P.

Ans : _____ (3 m)

42) Mrs. Tan had $11\frac{1}{5}$ kg of flour. She used $1\frac{1}{5}$ kg of it to bake a big cake. The remaining flour was used to make 25 identical small cakes. If she wanted to make another 2 small cakes and 1 kg of flour cost $1.50, how much did she need to pay for the additional flour?
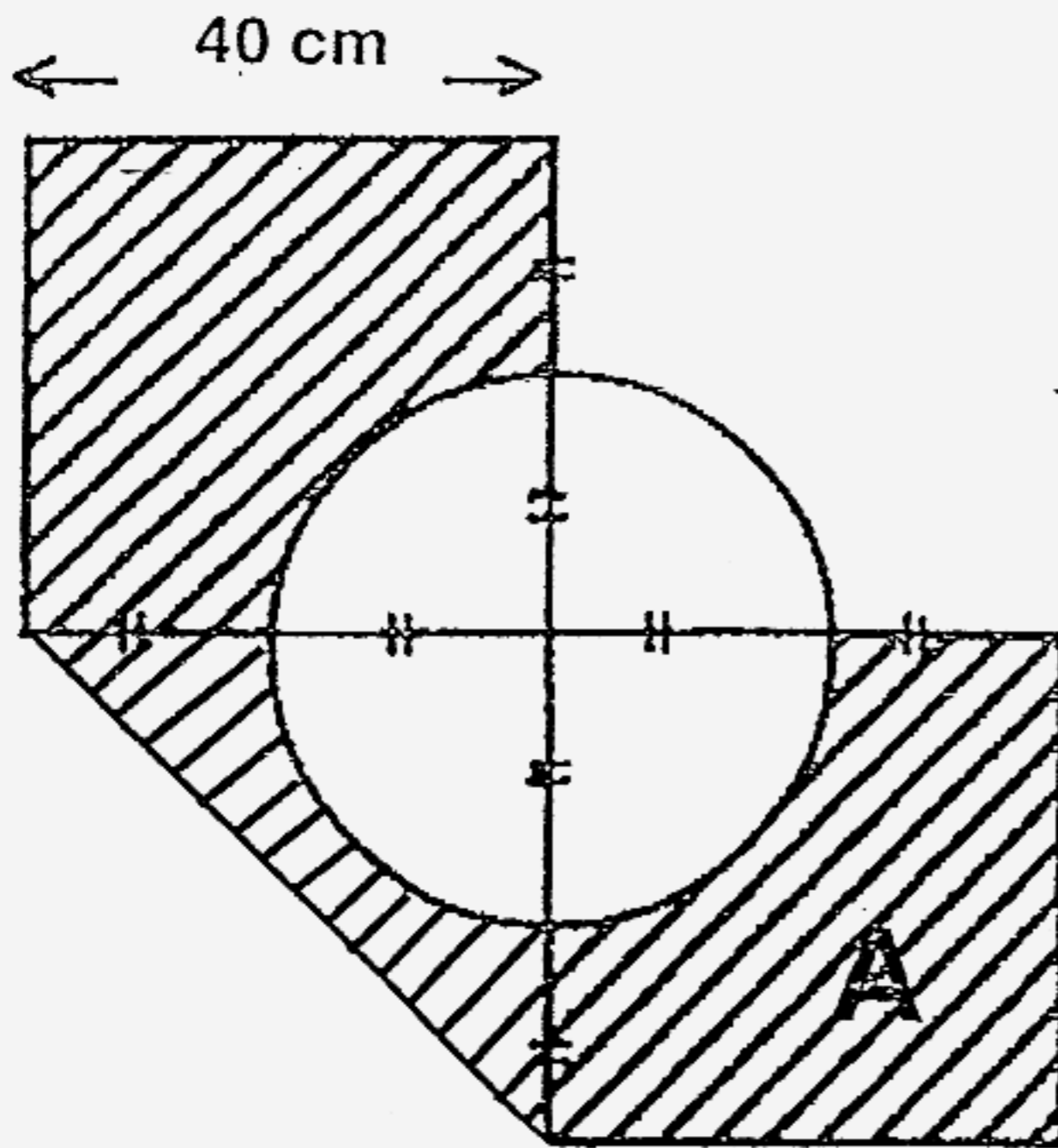
Ans : _____ (4 m)

www.misskoh.com

43) The figure below consists of 2 identical squares, a triangle and a circle.

(a) Find the perimeter of the shaded part labeled A.
(b) Find the area of the shaded parts.

(Take π = 3.14)

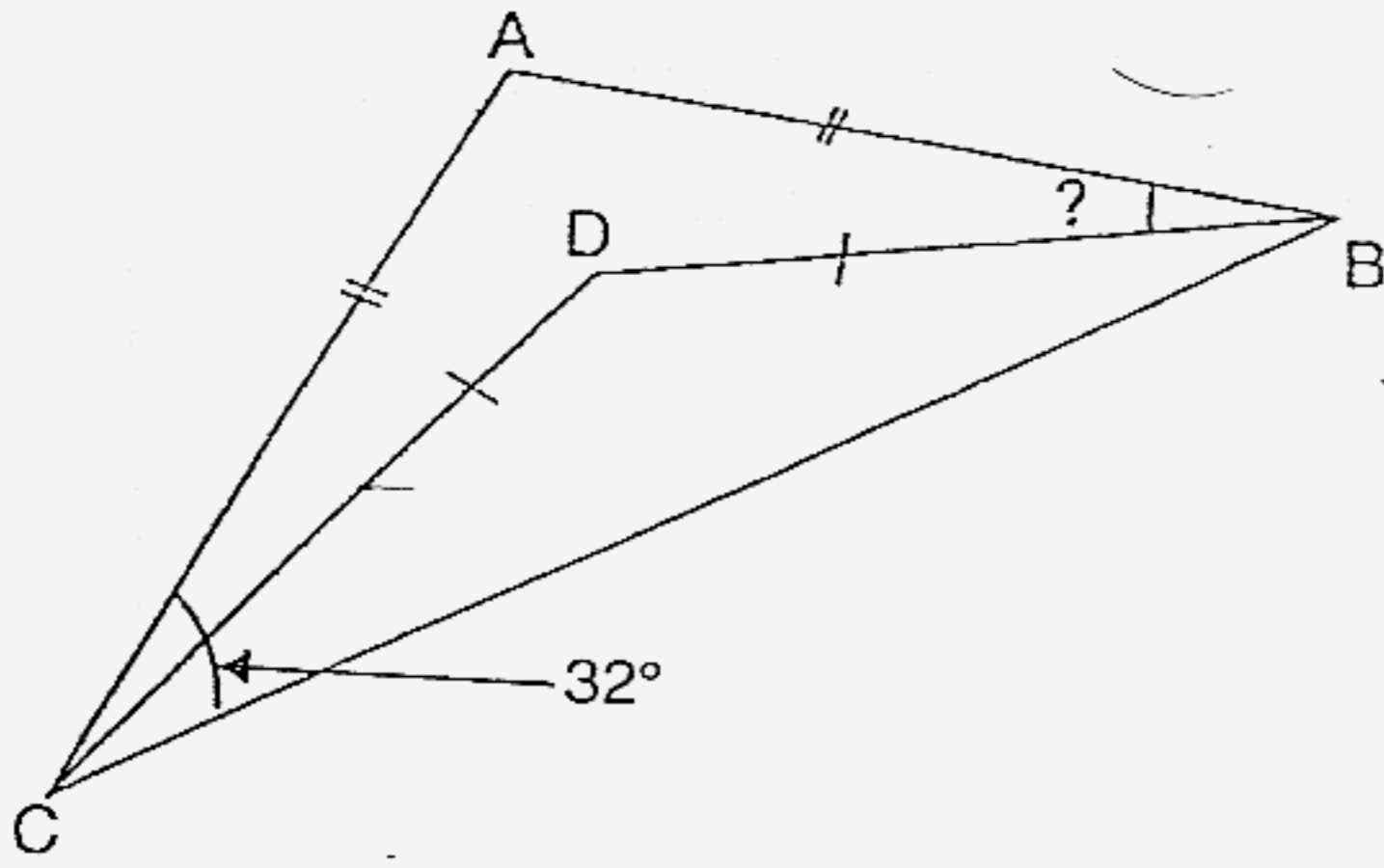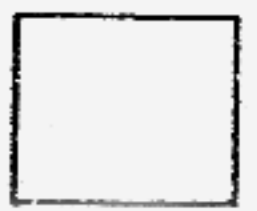Ans : (a) _____ (2 m)

(b) _____ (2 m)

www.misskoh.com

44) ABC and DBC are isosceles triangles. Given that ∠ACB = 32° and ∠CDB is 26° more than ∠CAB, find ∠ABD.

Ans :_____ (4m)

www.misskoh.com
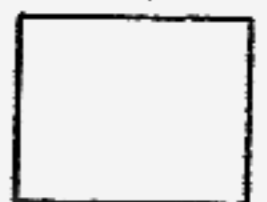
45) Kevin had 5 stacks of twenty-cent coins. There were 8 coins in each stack. He exchanged all these coins for five-cent coins. He then used all the five-cent coins to form a square which had an equal number of coins along each of its side. What is the total number of coins along 3 sides of the square?
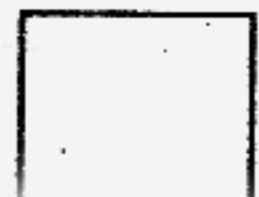
Ans : _____ (5m)

46) The total mass of 17 bottles and 16 cans is 12.93 kg. If the total mass of 13 bottles and 12 cans is 9.81 kg, find the difference in mass between a bottle and a can.

Ans : _____ (5m)

47) A rectangular tank measures 50 cm long, 39 cm wide and 14 cm high. It has a water level of 6 cm.

(a) What fraction of the tank is filled with water?
(b) If water flows from a tap into the tank at a rate of 10 cm³ per second, how long does it take for the tank to be completely filled with water? (Give your answer in minutes)

Ans : (a) _____ (2m)

(b) _____ (3m)

22

48) After Haoming donated 16 % of his savings to his school and spent part of it on a bicycle, he was left with $330. He received an extra 20% of the original amount of his savings from his mother and had $430 in all.

(a) Find the amount of money Haoming donated to his school.
(b) Find the price of the bicycle.

Ans : (a) _____ (3m)

(b) _____ (2m)

End of Paper

23

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

16. 1800

17. 1935

18. 1

19. 50

20. 8

21. 10 : 7

22. 10

23. $\dfrac{3}{400}$

24. 30

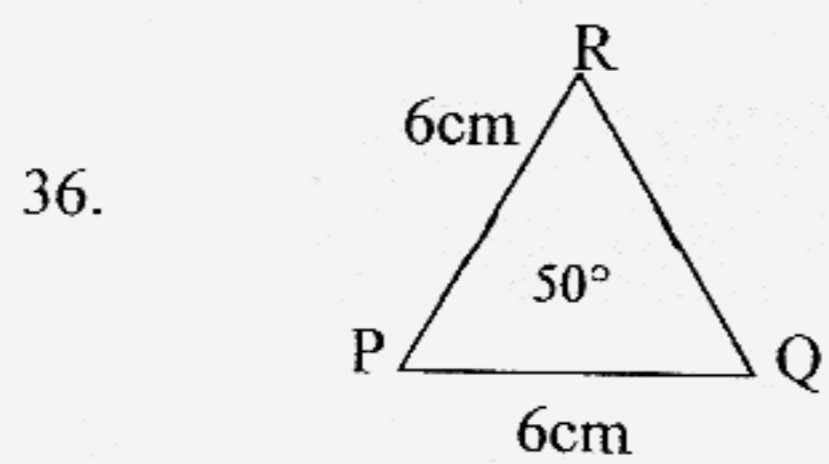25. 37.6m

26. 54

27. D, C, B, A

28. 109.20

29. 2.40

30. 18

31. 4

32. 432

33. $\dfrac{6}{25}$

34. 1700

35. $\dfrac{k}{12} - 950$

36.

37.   10cm

38.   300

39a.   600
39b.   72

-40. $\dfrac{2}{25}$

41.   90km

42. $1.20

43a.   151.4cm
43b.   3058cm²

44.   13°

45.   121

46   0.12kg

47a. $\dfrac{3}{7}$
47b.   26mins

48a. $80
48b. $90