MAHA BODHI SCHOOL

Primary 5 Mathematics
End-of-Year Examination
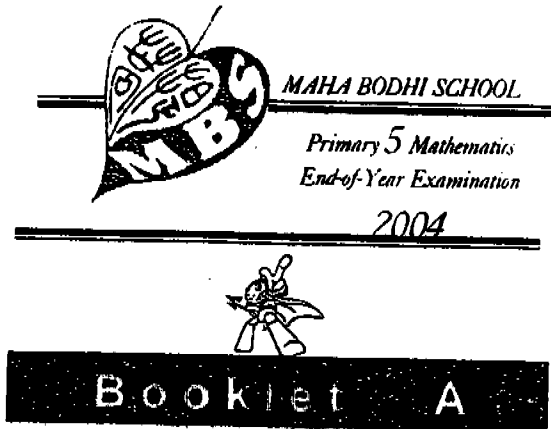*2004*

Booklet A

35 Questions

45 marks

Total Time for Booklets A & B : 2 hours 15 minutes

- ♦ **DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**
- ♦ **FOLLOW ALL INSTRUCTIONS CAREFULLY.**
- ♦ **ANSWER ALL THE QUESTIONS.**
- ♦ **YOU WILL FIND PAGES 1 TO 11 IN THIS BOOKLET.**
- ♦ **FOR QUESTIONS IN *SECTION A*, SHADE YOUR ANSWERS ON THE *OAS* PROVIDED. FOR QUESTIONS IN *SECTION B*, WRITE YOUR ANSWERS ON THE *ANSWER SHEET*.**

Name: _____ (   )   Date: 2ND November 2004

Class: Primary 5 (   )

Section A- Multiple-Choice Questions (25 marks)

Questions 1 - 5 carry 1 mark each.

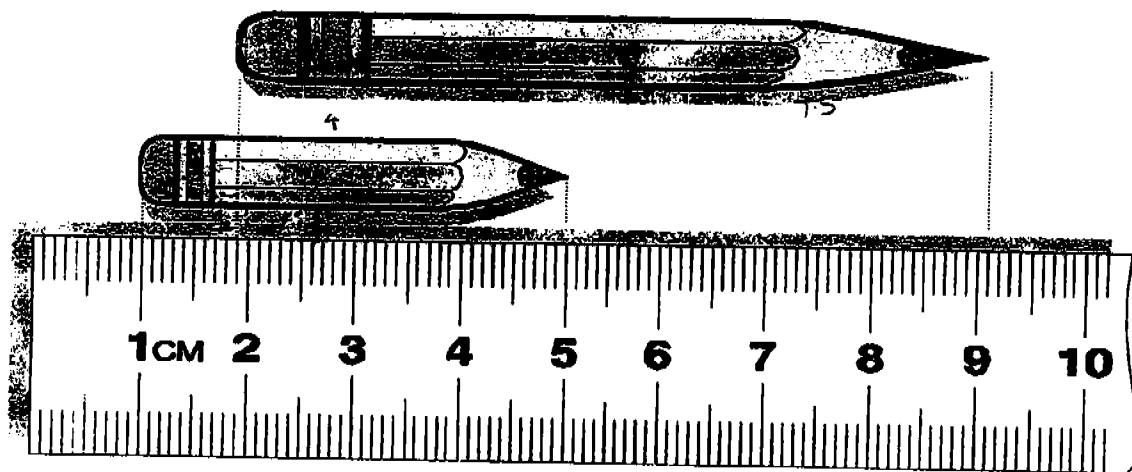**Questions 6 - 15 carry 2 marks each.**

For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4) and shade the number in the corresponding oval on the OAS.

1.   Which one of the following numbers is nearest to 200?

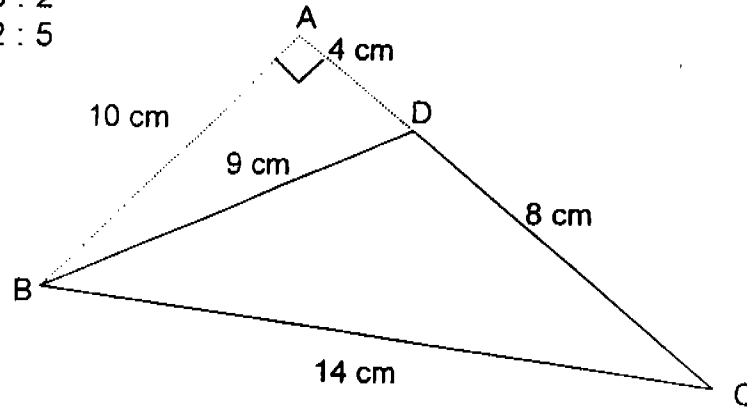   (1)   199.9
    (2)   199.01
    (3)   200.9
    (4)   200.01

2.   The total length of the two pencils is about _____ cm.

    (1)   11 cm
    (2)   12 cm
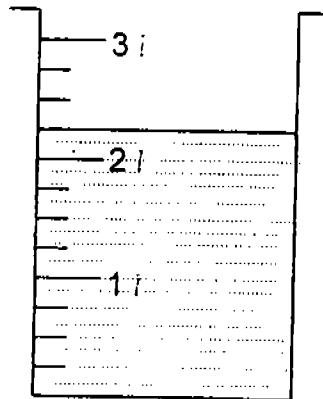   (3)   13 cm
    (4)   14 cm

3. 40% of the pupils in a class are boys.
    What is the ratio of the number of girls to the
    total number of pupils in the class?

    (1)   3 : 5
    (2)   2 : 3
    (3)   3 : 2
    (4)   2 : 5

4. In the diagram above, not drawn to scale, AB, BC, CA and BD
    are straight lines.   Given that AB ⊥ AC, AB = 10 cm, BC = 14 cm,
    CD = 8 cm, DB = 9 cm and AD = 4 cm, find the area of triangle BDC.

    (1)   70 cm²
    (2)   60 cm²
    (3)   40 cm²
    (4)   20 cm²

5. How much water is there in the beaker above?
    (1)   2 500 ml
    (2)   2 025 ml
    (3)   2 l 25 ml
    (4)   2 l 250 ml

6. Mother bought 5m of cloth. She used $\frac{1}{4}$ of it .
How many metres of cloth did she have left?

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

(2) $1\frac{1}{4}$

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

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

7. 5 girls were given 4 sweets each and 3 boys had to share 12. How many sweets did each child get on the average?

(1) 7
(2) 2
(3) 8
(4) 4

The telephone charges to a particular country are given as follow.
Study it carefully before answering Question 8.

First 3 minutes or part thereof:	$ 0.70
Next 5 minutes thereafter:	$ 0.30 per minute
Every minute thereafter:	$ 0.50

8. How much does it cost to talk on the phone for 11 minutes at this rate?
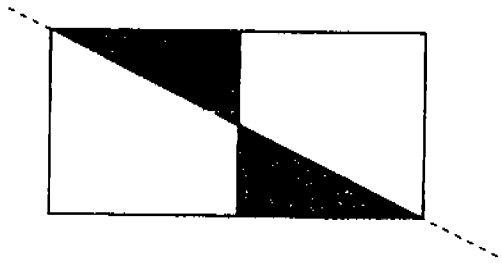
(1) $ 2.70
(2) $ 3.70
(3) $ 5.10
(4) $ 5.50

9. In each of the following rectangles, a dotted line is drawn. Which one of these lines is a line of symmetry?

(1)

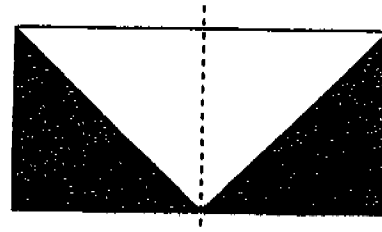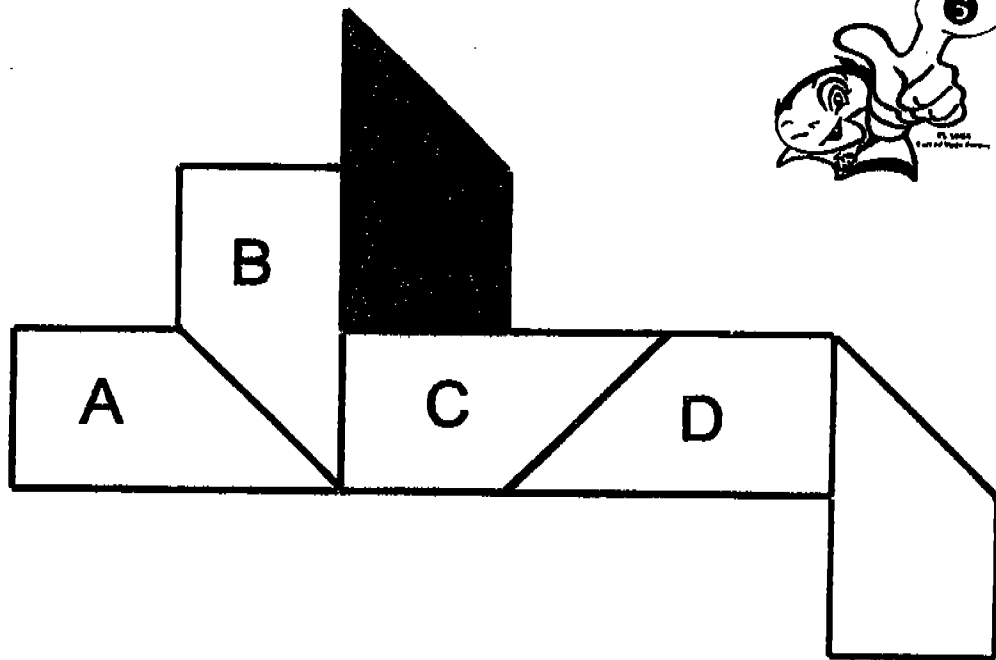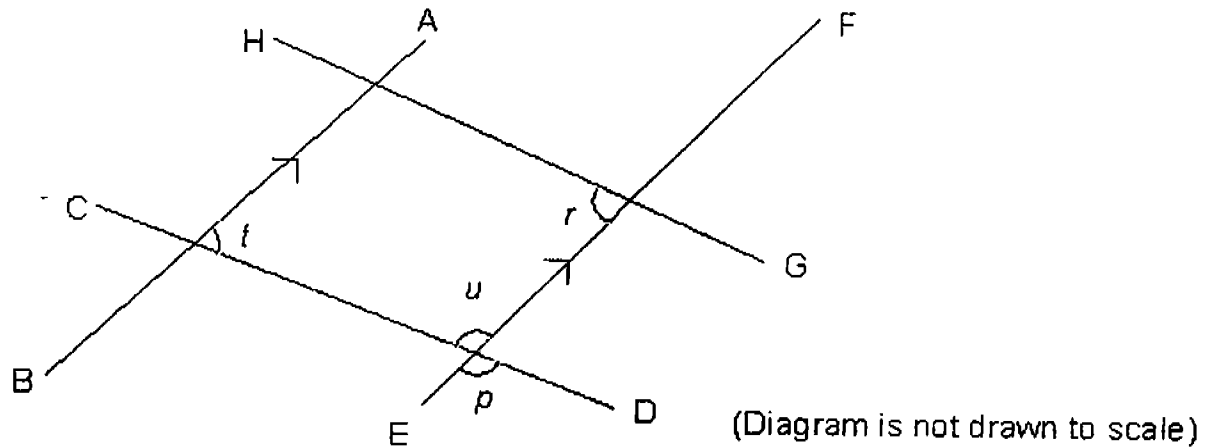

(2)

(3)

(4)

24

10. The picture above shows a tessellation of the shaded unit shape. Which one of the marked shapes has been tessellated **wrongly**?

(1) A
(2) B
(3) C
(4) D

11. Ali and Bala are to share some sweets. For every 3 sweets that Ali gets, Bala will get 2 more. What percentage of the sweets will Bala get?

(1) 37.5 %
(2) 40 %
(3) 60 %
(4) 62.5 %

12. 36 pupils were told to form a square. How many children were there on each side of the square?

(1) 6
(2) 8
(3) 9
(4) 10

In the diagram below, AB, CD, EF and GH are straight lines and AB is parallel to EF. Study it carefully before answering Question 13.

(Diagram is not drawn to scale)

13. Which one of the following statements is <u>definitely correct</u>?

(1) $\angle r + \angle t = 180°$
(2) $\angle r + \angle u = 180°$
(3) $\angle t + \angle p = 180°$
(4) $\angle u + \angle p = 180°$

14. What is the percentage discount for the evening gown shown on the right?

(1) 80 %
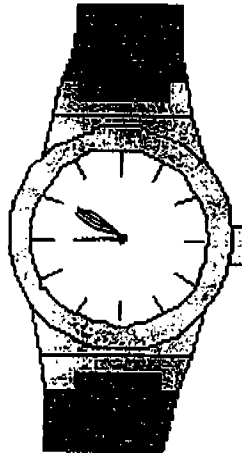(2) 50 %
(3) 25%
(4) 20%

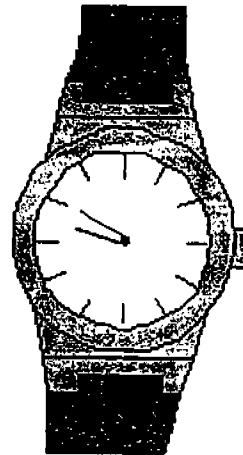**_Evening Gown_**
Now: $ 200
Was: $ 250

26

15. The time is now 15 minutes to 10 a.m. Which one of the following watches shows correctly the position of the hour hand?
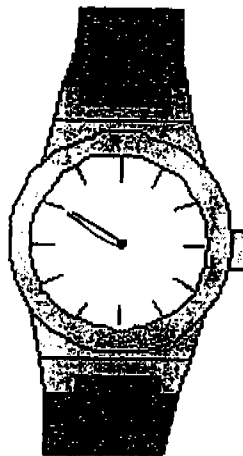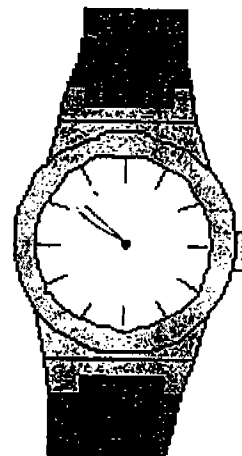
(1)

(2)

(3)

(4)

27

Section B. (20 marks)

Each question from 16 - 35 carries 1 mark.
Write your answers on the **Answer Sheet.**

16. In 234.567, which digit is in the tenths place?

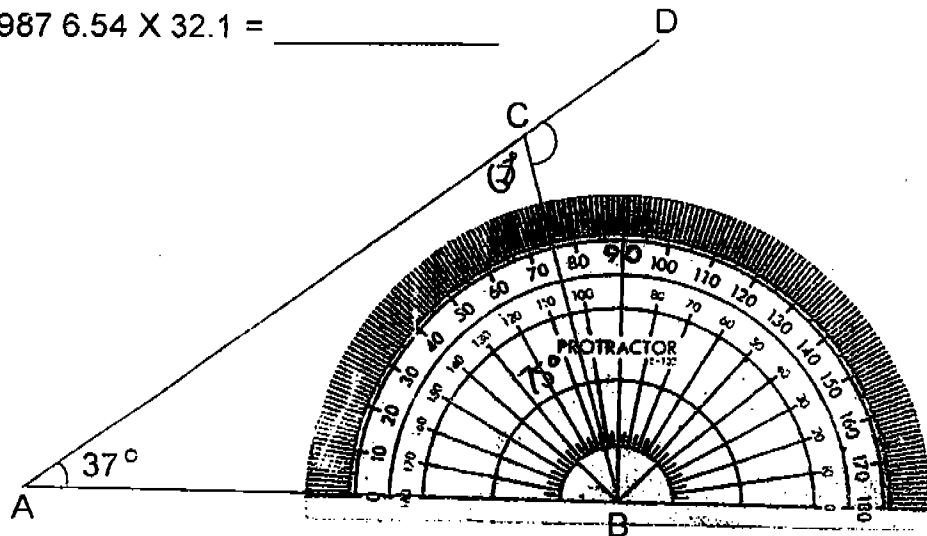17. Round off 2 222 ¢ to the nearest dollar.

Study the following mathematical statement and answer
Questions 18 & 19: –

$$987\ 654 \times 321 = 317\ 036\ 934$$

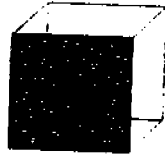18. 987 654 X 321 = 987 554 X 321 + [   ] X 321

What is the missing number in the box?

19. 987 6.54 X 32.1 = _____

20. In the diagram above, AB, BC and DA are straight lines.
Using *only* the information given in the diagram above,
find ∠DCB *if* ∠CAB= 37°

21. The shaded face of the cube shown below has an area of 16 cm².
What is the volume of the cube?

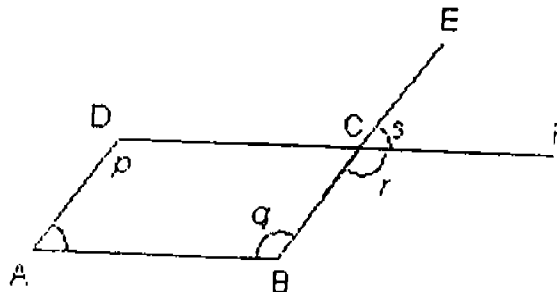22. Reduce $\frac{5}{10}$ to its simplest form.

23. $3\frac{1}{4} - 1\frac{1}{2} = $ ☐

24. Hashim paid $9.90 for a toy after getting a 10% discount.
What was the original price of the toy?

25. John's results are shown on the right. Find the average marks he scored for each subject.

English: 84 / 100
Chinese: 92 / 100
Maths   : ⊛ /100
Science: 78 /100
─────────────────────
Total   :   320 / 400

26. In the diagram below, ABCD is a parallelogram. BE and DF are straight lines. Which one of the marked angles is equal to ∠DAB?

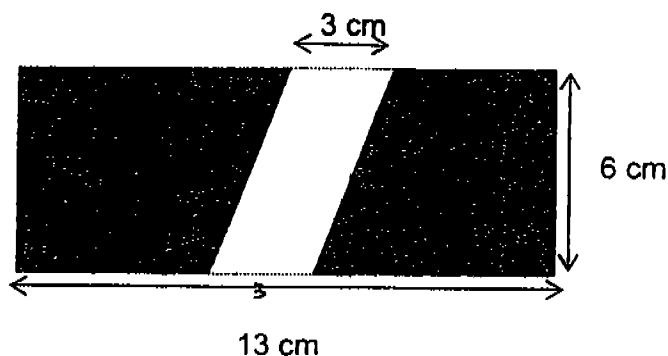27. A tree will take half a year to grow 3 cm. At this rate, how many months will it take to grow by 2 cm?

28. $10 - 8 \div 2 + 2 = $ _____

29. It is now November.

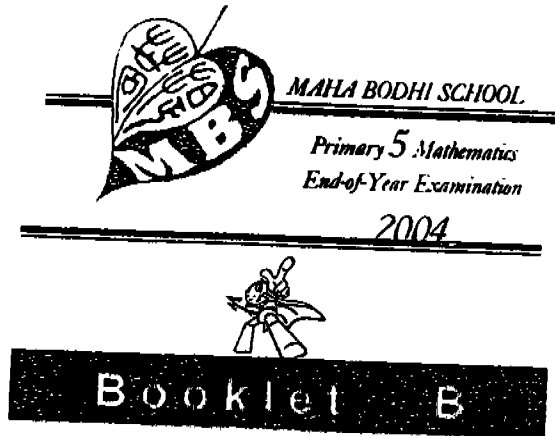   Which month of the year will it be in a $\frac{1}{4}$ year's time?

30. Sally can type 120 words in 5 minutes. How long does she take to type 300 words at this rate?

31. Express $\frac{1}{5}\%$ as a decimal.

32. There are twice as many 50¢ coins as 20¢ coins in a box. They add up to be more than $5 but less than $8. How much money could there possibly be in the box?

13 cm

33. A parallelogram was cut from a rectangle 13 cm by 6 cm as shown in the diagram above. What is the remaining area of the rectangle?

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Primary 5 Mathematics
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2004

Booklet B

15 Questions

55 marks

Total Time for Booklets A & B : 2 hours 15 minutes

- ♦ DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
- ♦ FOLLOW ALL INSTRUCTIONS CAREFULLY.
- ♦ ANSWER ALL THE QUESTIONS.
- ♦ SHOW ALL YOUR WORKING STEPS CLEARLY IN THE SPACE PROVIDED. OMISSION OF KEY WORKING STEPS OR UNITS OF MEASUREMENT WILL RESULT IN A LOSS OF MARKS.
- ♦ YOU WILL FIND PAGES 12 TO 23 IN THIS BOOKLET WITH THE ANSWER SHEET ON THE BACK COVER.

Name: _ _ _ _____ ( )   Date: 2ND November 2004

Class: Primary 5 ( )

Section C (55 marks)

For questions 36 to 50, write your answers in the spaces provided.
For each question, **show your working clearly** in the space
below each question.
The number of marks for each question or part-question
are shown in the brackets ( ).

36. Mrs Cheong spent thrice as much money as Mrs Wong.
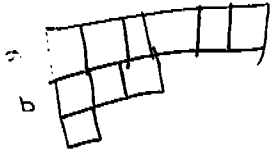If Mrs Cheong spent $12.30, how much did the
two women spend in all?

Answer: _____ (2m)

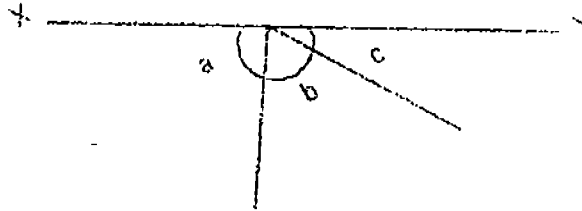37. Sammy saves 50¢ more than Sharon daily.
When Sharon has saved $6, Sammy has saved $8.50.
How much does Sharon save daily?

Answer: _____ (2m)

38. In the diagram below, not drawn to scale, XY is a straight line. Given that ∠a is twice as large as ∠b and that ∠b is thrice as large as ∠c, find ∠a.
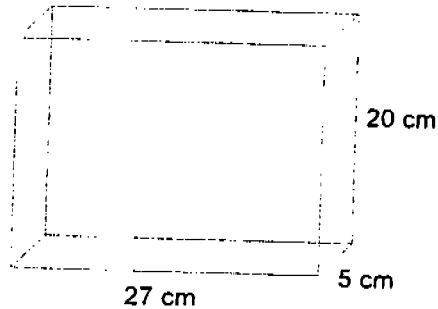

Answer: _____(2m)

39. 3 apples and 2 pears cost $2.70.
2 apples and 3 pears cost $2.80.
What is the total cost of an apple and a pear?

Answer: _____(2m)

40. (a) What is the volume of the box shown below?
    (b) What is the maximum number of cubes of sides 3 cm that can be fitted into the box?
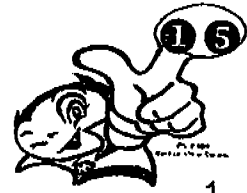

20 cm

27 cm   5 cm

Answer: (a)_____(1m)

(b)_____(2m)

41. Ahmad and Banu have 30 stickers in total.
Banu and Calvin have 45 stickers altogether.
If Ahmad has 4 stickers more than Banu, how many stickers has Calvin?

Answer: _____(3m)

42. After Albert had spent $\frac{3}{5}$ of his money and Beatrice had spent $\frac{1}{4}$ of hers, they had the same amount of money left. If they had an average of $23 at first, how much did Albert spend?

Answer: _____ _____(4m)

43. There were 40 children at a party. Each girl was given 5 balloons while each boy was given 60% as many. If the girls took 24 balloons more than the boys in total, how many boys were at the party?
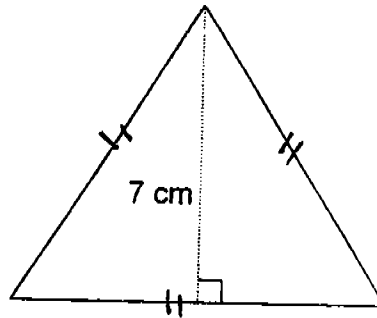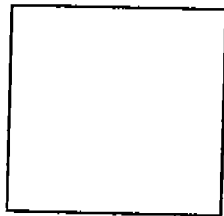
Answer: _____ (4m)

44. The square in the diagram below has the same perimeter as the equilateral triangle. If the area of the square is 36 cm^2, find the area of the triangle.

7 cm

Answer: _____ in)

An identical ring is being sold in two shops at different prices.
Study the information presented below before answering Question 45.

Shop A	Shop B
Usual Price: $ 60	Usual Price: $ 55
Discount: 20%	Discount: 10%

45. (a) How much less will the ring cost in Shop A after the discount?
     (b) Find the difference between the discounted prices of the ring in the two shops?

Answer: (a)_____(1m)

(b)_____(3m)

46. A teacher has a bag of sweets. If she gives each pupil in her class 5 sweets each, she will have 20 sweets left. If she gives them 8 sweets each, she will need to buy another 88 sweets. How many sweets does the teacher have?

Answer: _____ _____(5m)

Study the picture below and answer the question that follows:

Can I have half a kilogram of cherries and 3 kilograms of grapes, please?

CHERRIES
$0.95 per 100 g

GRAPES
per 100 g

Sure... and that will be $13, madam. Thank you.

47. How much would a kilogram of each type of fruit cost in total?

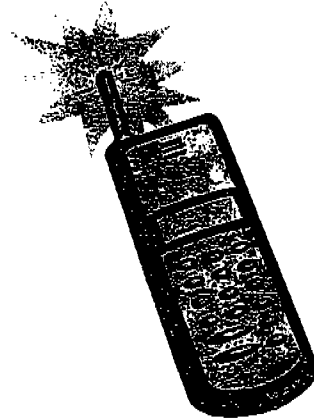Answer: _____(5m)

48. It costs 10¢ to send a short message (SMS) and twice as much to send a multi-media message (MMS). In a particular month, a subscriber paid $56 for sending $\frac{2}{3}$ as many MMS as SMS. How many SMS did the subscriber send that month?
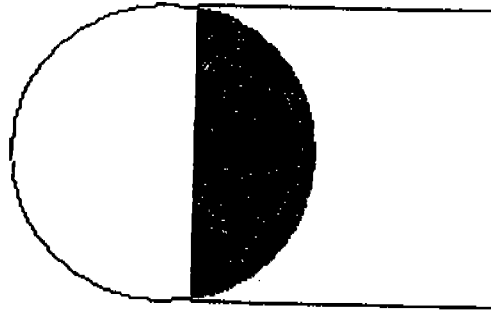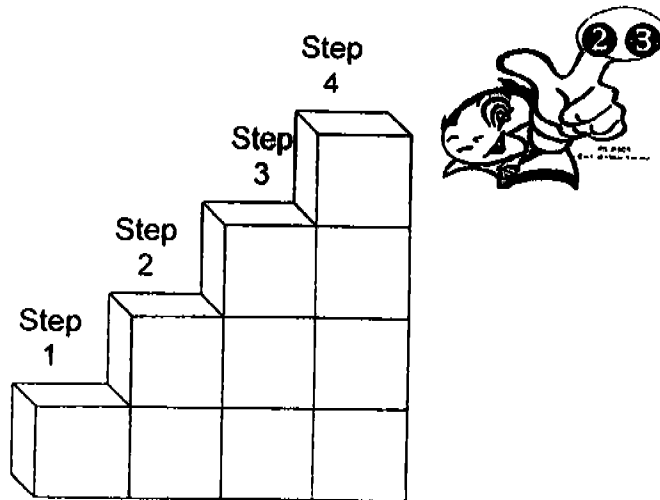
Answer: _____ (5m)

The figure below consists of a circle that has been pasted on top of a square. The pasted part is shaded. Study it carefully and answer Question 49.

49.   In the circle, the ratio of the area of the unshaded part to that of the shaded part is 5 : 3. In the square, $\frac{2}{7}$ of it is shaded. Find:

(a)   the ratio of the area of the circle to that of the square and

(b)   the ratio of the area of the shaded part to that of the unshaded part of the figure.

Answer: (a)_____(2m)

(b)_____(3m)

Step 4

Step 3

Step 2

Step 1

50. Some 3-cm cubes are stacked up to form steps as shown in the diagram above.

(a) What is the volume of the figure shown above?

(b) How many more such cubes will be needed if the figure is to reach Step 25?

Answer: (a)_____(2m)

(b)_____(3m)

End of Paper

Please check your work

1) 4

2) 1

3) 1

4) 3

5) 4

6) 3

7) 4

8) 2·

9) 4

10) 1

11) 4

12) 4

13) 3

14) 4

15) 2

16) 5

17) $ 22

18) 100

19) 317036.934

20) 112

21) 64

22) 1/2

23) 1 3/4

24) $ 11.00

25) 80

26) $\angle$ s

27) 4 months

28) 8

29) February

30) 12.5 minutes

31) 0.002

32) $ 6.00

33) 60 cm^2

34) 40 km

35) 60 km

36) $ 16.40

37) $ 1.20

38) 108°

39) $ 1.10

40) a) 2700 cm^3

   b) 54 cubes

41) 32 stickers

42) $ 18

43) 22 boys

44) 28 cm^2

45) a) $ 12   b) $ 1.50

46) 200 sweets

47) $ 12.25

48) 240 SMS

49) a) 16 : 21   b) 6 : 25

50) a) 270 cm^3

   b) 315 cubes

THE END

44