

CLASS VIII MIDDLE SECTION
SUBJECT : MATHEMATICS

Max marks : 90
Duration : 3 hrs

SET A

Instructions

- All questions are compulsory : internal choices are provided.
- Section A Questions 1 to 8 carry 1 mark each
- Section B Questions 9 to 14 carry 2 marks each
- Section C Questions 15 to 24 carry 3 marks each
- Section D Questions 25 to 34 carry 4 marks each

SECTION A

Choose the correct option

1. Sum of a rational number and its additive inverse is

- a) 1 b) 0 c) --1 d) number itself

2. Maximum exterior angle possible for a regular polygon

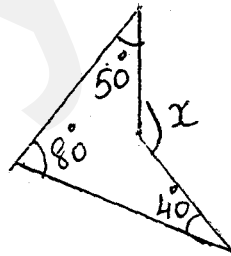
- a) 60° b) 180° c) 360° d) 120°

3. $\sqrt{900} + \sqrt{0.09} =$

- a) 30.3 b) 30.03 c) 33 d) 33.3

4. Value of angle x in the figure is

- a) 100° b) 190° c) 170° d) 90°



5. The number of digits in the square root of a number having 7 digits is

- a) 3 b) 4 c) 2 d) 1

6. Cube of 0.2 is

- a) 0.008 b) 0.8 c) 0.08 d) 8

7. Price of mangoes increased from Rs 50 to Rs 70. The increase % is

- a) 20% b) 40% c) 50 % d) 70%

8. Selling price of a steam iron sold at a loss of 10% if the cost price is 1050 is

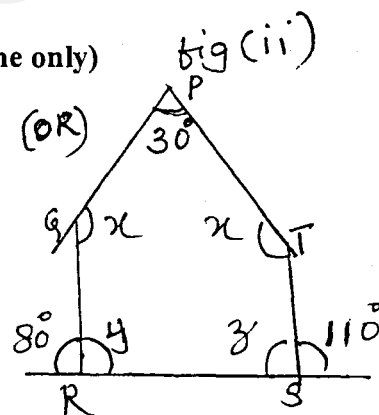
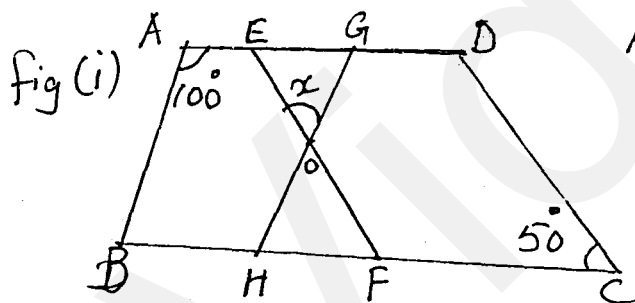
- a) Rs 150 b) Rs 1155 c) Rs 105 d) Rs 945

SECTION B

9. Find the square root of 2704 (by long division method)
10. Find the cube root of 9261
11. Identify the property used
- a) $(\frac{3}{5} \times \frac{5}{4}) \times -\frac{7}{8} = \frac{3}{5} \times (\frac{5}{4} \times -\frac{7}{8})$ (b) $\frac{11}{3} \times 1 = \frac{11}{3}$
12. Opposite angles of a parallelogram are $(5x-7)^\circ$ and $(4x+3)^\circ$
Find all the angles of the parallelogram.
(or)
Find the number of sides of a regular polygon if the sum of its interior angles is 1800° .
13. After spending 65 % of the amount he had Anand has Rs 1400 left with him
Find the amount he had in the beginning with him.
14. Shama purchased a sari costing Rs 1250 . The bill amount he had to pay was Rs 1350. Find the VAT %

SECTION C

15. Find the value of x in the figure i (or) fig ii (any one only)



16. Find square root of 424.36
17. Find the perimeter of a square having area 6889 sq m
18. How many cuboids of dimensions 4cm, 6cm, 15cm are needed to make a cube ?
19. a) Represent $-\frac{5}{4}$ on the number line .

b) Find 4 rational numbers between $-\frac{2}{3}$ and $-\frac{3}{4}$

20 .Solve using suitable properties

$$\frac{7x-3}{5} - \frac{3}{12} + \frac{7x-3}{5} + \frac{3}{4}$$

21 .Construct a parallelogram PQRS in which PQ =4.5 cm QR =3.5 cm
PR = 5.4 cm

22 . Adjacent sides of a parallelogram are in the ratio 7 : 2 and
its perimeter is 90 cm .Find the sides of the parallelogram

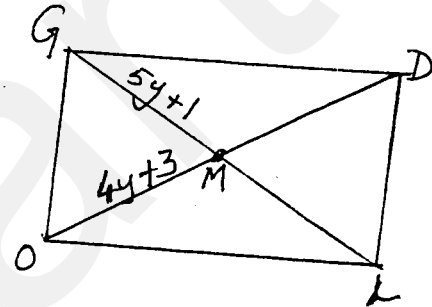
(or)

Find the length of the diagonals of
Rectangle GOLD

Diagonals bisect at M.

$$GM = 5y+1$$

$$OM = 4y+3$$



23 .Find the marked price of an electric kettle sold for Rs 880
after allowing a discount of 12 %.

24 .Construct Quadrilateral PQRS where PQ=3.5cm,QR = 6.5 cm
 $\angle P = 120^\circ$, $\angle R = 105^\circ$ $\angle S = 75^\circ$

SECTION D

25 . Find Compound interest on Rs 16,000 for $1\frac{1}{2}$ years @10 %
per annum compounded half yearly.

(or)

Calculate the amount and compound interest on Rs 20,000
for 2 years and 8 months @ 5% per annum compounded annually.

26 . Find the value of a car bought for Rs 4,50,000 after 2 years if the
rate of depreciation is 20% . Also find the amount of depreciation .

27 .Construct a rhombus ABCD in which AC =5.5 cm and BD = 6 cm

28. Construct a quadrilateral MNOP MN=4 cm, PM =2.5cm ,OP = 3cm
OM = 4.5 cm .write the steps of construction
29. Find the smallest no by which 41160 must be divided to get a perfect cube . Also find the cube root of the quotient.
- 30 . Find the greatest number of of 4 digits which is a perfect square
31. a) Find the measure of each exterior angle of an octagon.
b) Find the measure of all the angles of a Rhombus ABCD if
AB = AC
32. 2592 plants are arranged in such a way that the number of rows is equal to twice the number of columns.
Find the number of rows and columns
- (or)
- Find the smallest square number exactly divisible by 16 ,18,and 45.
Also find the square root of that number
33. a) Multiply $\frac{14}{15}$ with the reciprocal of $-\frac{7}{8}$
b) Verify $x(y+z) = xy + xz$ for $x = \frac{1}{2}$ $y = \frac{4}{3}$ $z = -\frac{3}{8}$
34. One of the diagonals of a rhombus is 30cm and its perimeter is 68cm . Find the length of the other diagonal.