

TRIANGLES

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MATHS PRACTICE PAPER 07

Total Marks : 20

I. Choose the Most Appropriate Answers

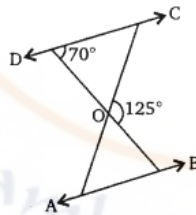
3 x 1 = 3

- O is a point on side PQ of a ΔPQR such that $PO = QO = RO$, then
 - $RS^2 = PR \times QR$
 - $PR^2 + QR^2 = PQ^2$
 - $QR^2 = QO^2 + RO^2$
 - $PO^2 + RO^2 = PR^2$
- In ΔABC , $DE \parallel AB$. If $CD = 3$ cm, $EC = 4$ cm, $BE = 6$ cm, then DA is equal to
 - 7.5 cm
 - 3 cm
 - 4.5 cm
 - 6 cm
- In a square of side 10 cm, its diagonal
 - 15 cm
 - $10\sqrt{2}$ cm
 - 20 cm
 - 12 cm

II. Solve the following

2 x 1 = 2

- In the given figure, $\Delta ODC \sim \Delta OBA$, $\angle BOC = 125^\circ$ and $\angle CDO = 70^\circ$. Find $\angle DOC$



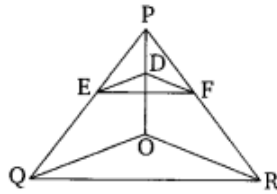
- S and T are points on sides PR and QR of ΔPQR such that $\angle P = \angle RTS$. Show that $\Delta RPQ \sim \Delta RTS$

III. Solve the following

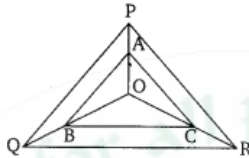
4 x 2 = 8

- Let $\Delta ABC \sim \Delta DEF$ and their areas be, respectively, 64 cm^2 and 121 cm^2 . If $EF = 15.4$ cm, find BC .

7. In the given figure, $DE \parallel OQ$ and $DF \parallel OR$. Show that $EF \parallel QR$



8. In the given figure, A, B and C are points on OP, OQ and OR respectively such that $AB \parallel PQ$ and $AC \parallel PR$



9. ABCD is a trapezium in which $AB \parallel DC$ and its diagonals intersect each other at the point O. Show that $\frac{AO}{BO} = \frac{CO}{DO}$

IV. Solve the following

1 x 3 = 3

10. Prove that the sum of the squares of the sides of a rhombus is equal to the sum of the squares of its diagonals.

V. Solve the following

1 x 4 = 4

11. Two poles of heights 6 m and 11m stand on a plane ground. If the distance between the feet of the poles is 12 m, find the distance between their tops

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