CBSE MERIT GAIN TEST PAPER
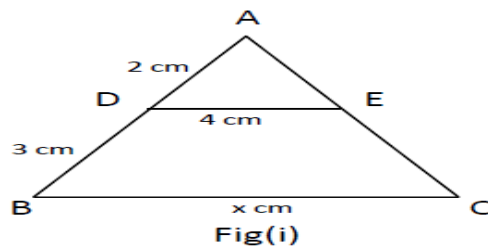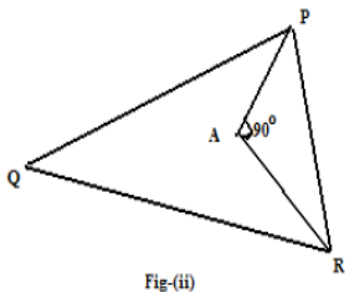**CLASS - X Mathematics (Similar Triangle)**

1. If Δ ABC is similar to Δ DEF < B=60^0 and <c=50^0 , then degree measure of < D.
Ans-70^0

2. In Fig-(1) if DE||BC find the value of x
Ans-10cm

Fig(i)

3. In the given fig-(ii) PQ 24 cm, QR=26 cm , < PAR=90^0, PA=6cm and AR=8cm find the value of < QPR.
 Ans-<QPR=90^0

Fig-(ii)

4. In given fig-(iii) Δ ABC and Δ DEF are similar, BC=3cm, EF=4cm, and area of triangle ABC=54cm^2 find the area of Δ DEF.   Ans-96 sq.cm


Fig-(iii)
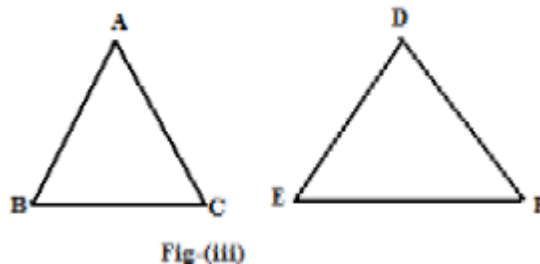
5. If the area of two similar triangles are in the ratio 16:25 then the ratio of their corresponding sides is.
Ans-4:5

6. If ar(ΔABC) : ar (ΔDEF)= 25:81 then AB:DE is.   Ans-5:9

7. A right triangle has hypotenuse P cm and one side q cm. If p-q=1, Find the length of the third sides.
Ans $\sqrt{2p-1}$

8. ABC is an isosceles triangle angled at B. Two equilateral triangles are constructed on side BC and AC in Fig-(iv) , prove that area of ΔBCD=1/2 area of ACE.
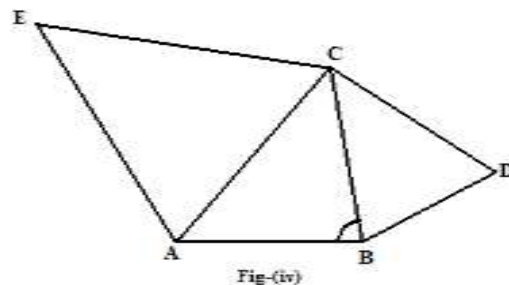
9. The diagonals of a quadrilaterals intersect each other at the point 0 such that AO/OC=BO/DO show that ABCD is a trapezium.

Fig-(iv)

10. ΔPQR is a triangle right angled at P and M is point on QR such that PM ⊥ QR. Show that PM^2= QM x MR.