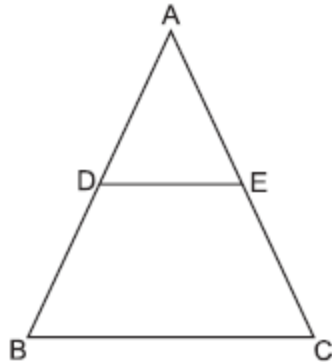


## Chapter-Triangles

### Question bank

Q1.

In Fig.,  $DE \parallel BC$ ,  $AD = 1$  cm and  $BD = 2$  cm. what is the ratio of the ar ( $\triangle ABC$ ) to the ar ( $\triangle ADE$ )?



Q2.

In  $\triangle DEW$ ,  $AB \parallel EW$ . If  $AD = 4$  cm,  $DE = 12$  cm and  $DW = 24$  cm, then find the value of  $DB$ .

Q3.

In Fig. , if  $\triangle ABC \sim \triangle DEF$  and their sides of lengths (in cm) are marked along them, then find the lengths of sides of each triangle.

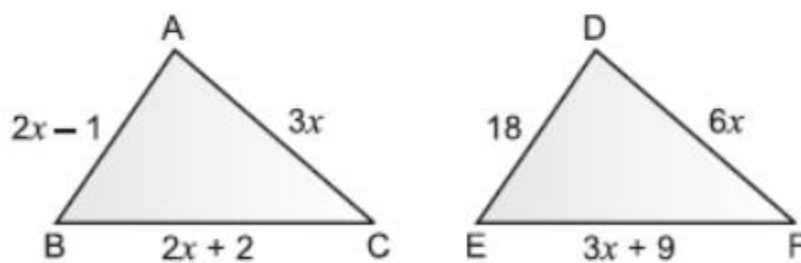


Fig.

Q4.

In Fig. ,  $\angle D = \angle E$  and  $\frac{AD}{DB} = \frac{AE}{EC}$ , prove that  $\triangle BAC$  is an isosceles triangle.

Q5.

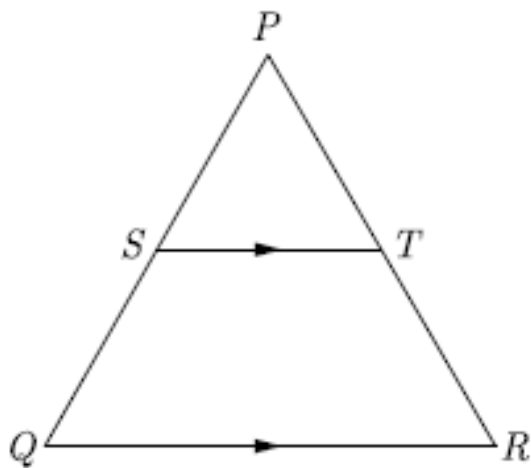
Two right triangles  $ABC$  and  $DBC$  are drawn on the same hypotenuse  $BC$  and on the same side of  $BC$ . If  $AC$  and  $BD$  intersect at  $P$ , prove that  $AP \times PC = BP \times DP$ .

Q6.

In  $\triangle ABC$ , if  $X$  and  $Y$  are points on  $AB$  and  $AC$  respectively such that  $\frac{AX}{XB} = \frac{3}{4}$ ,  $AY = 5$  and  $YC = 9$ , then state whether  $XY$  and  $BC$  parallel or not.

Q7.

In the given figure, in a triangle  $PQR$ ,  $ST \parallel QR$  and  $\frac{PS}{SQ} = \frac{3}{5}$  and  $PR = 28$  cm, find  $PT$ .

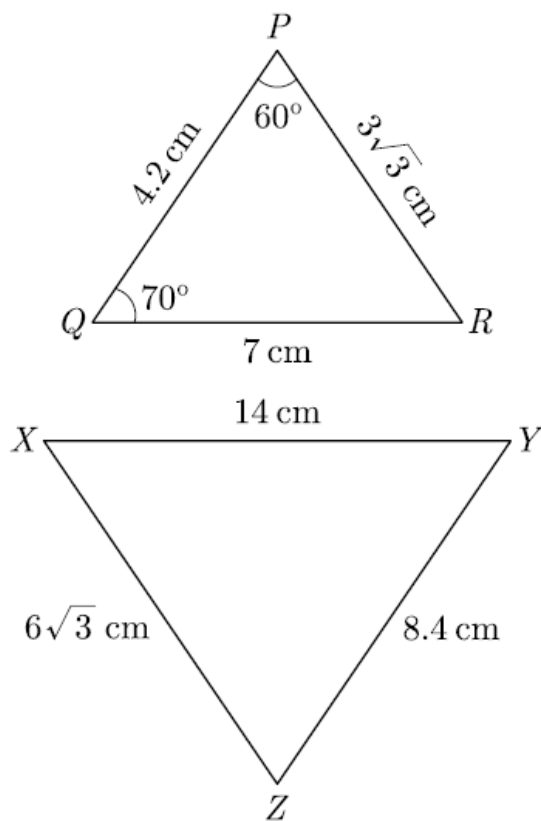


Q8.

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

Q9.

In the given figures, find the measure of  $\angle X$ .



Q10.

In the given figure,  $OA \times OB = OC \times OD$ , show that

$\angle A = \angle C$  and  $\angle B = \angle D$ .

