

# Construction

Dec 2023

1. Draw a circle of radius  $3.5\text{cm}$ . Take a point P outside the circle at a distance of  $7\text{cm}$  from the centre of the circle and construct a pair of tangents to the circle from that point.
2. Construct a  $\triangle ABC$  with sides  $BC = 6\text{cm}$ ,  $AB = 5\text{cm}$  and  $\angle ABC = 60^\circ$ . Then construct a triangle whose sides are  $\frac{3}{4}$  of the corresponding sides of  $\triangle ABC$ .
3. In Figure-1,  $DE \parallel BC$ . If  $\frac{AD}{DB} = \frac{3}{2}$  and  $AE = 2.7\text{cm}$ , then  $EC$  is equal to
  - (a)  $2.0\text{cm}$
  - (b)  $1.8\text{cm}$
  - (c)  $4.0\text{cm}$
  - (d)  $2.7\text{cm}$

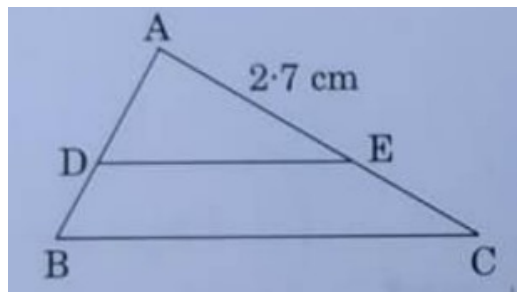


Figure 1

4. In Figure-2 ,if  $PQ \parallel BC$  and  $PR \parallel CD$  that  $\frac{QB}{AQ} = \frac{DR}{AR}$ .

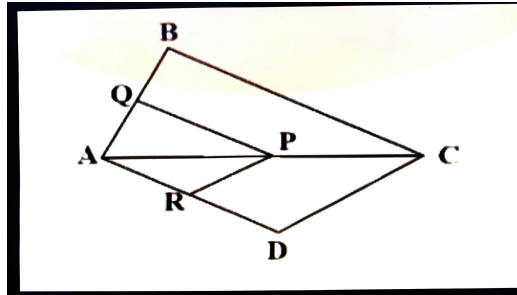


Figure 2