Construction

Dec 2023

1. Draw a circle of radius $3.5cm$. Take a point P outside the circle at a distance of $7cm$ from the centre of the circle and construct a pair of tangents to the circle from that point.

2. Contruct a $\triangle ABC$ with sides $BC = 6cm$, $AB = 5cm$ and $\angle ABC = 60°$. 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 $AE = 2.7cm$, then EC is equal to

   (a) $2.0cm$

   (b) $1.8cm$

   (c) $4.0cm$

   (d) $2.7cm$

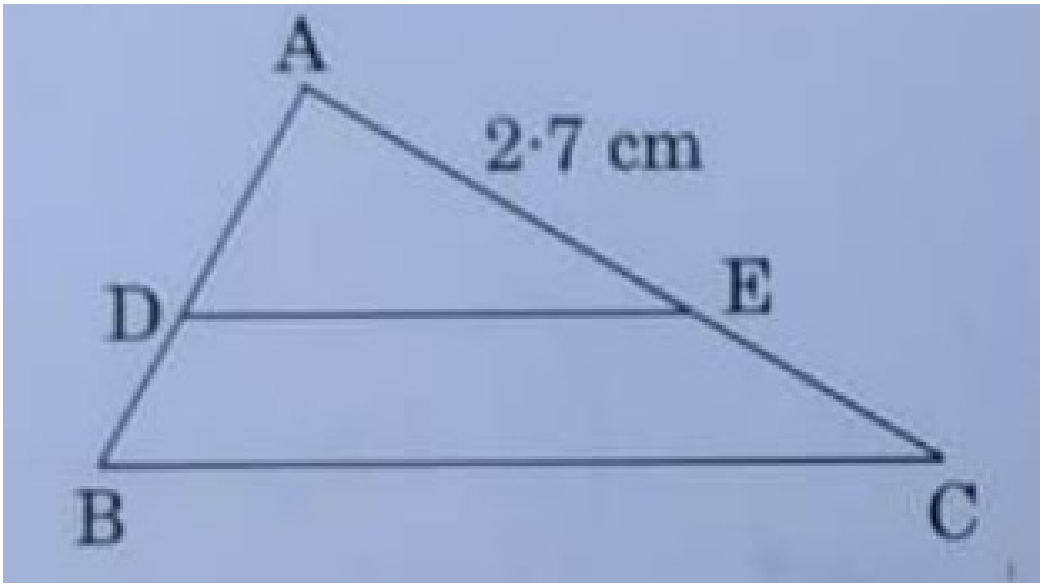

Figure 1: Adjoining triangle

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

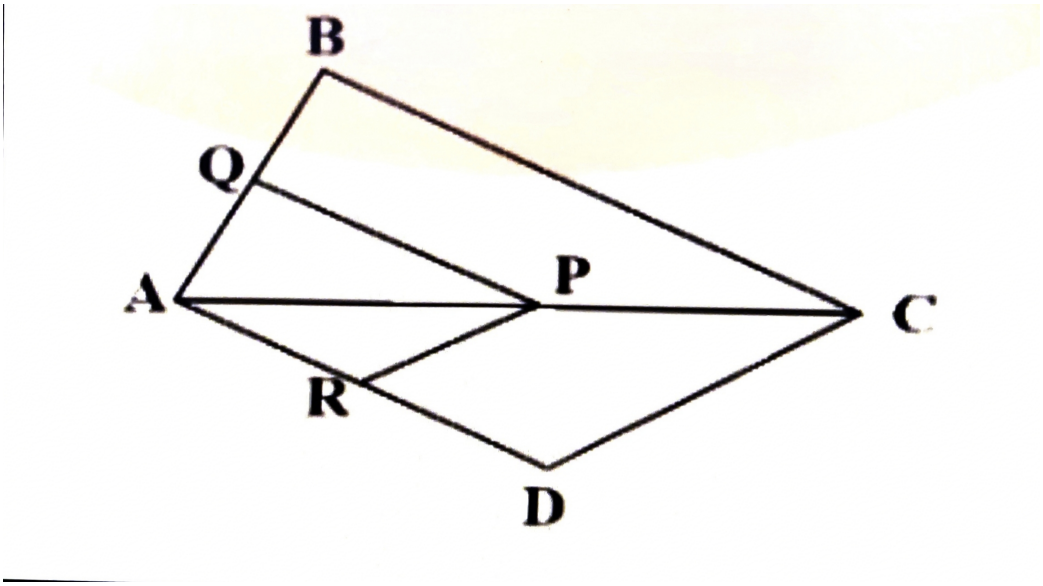

Figure 2: Intersection of Diagonals in a Quadrilateral