

Practical Geomentry (constructions) Ex 18.5 Q1

Answer:

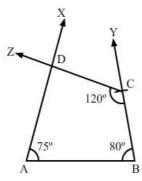
Steps of construction:

Step I: Draw AB = 4 cm.

Step II: Construct $\angle XAB = 75^{\circ}$ at A and $\angle ABY = 80^{\circ}$ at B.

Step III: With B as the centre and radius 3 cm, cut off BC = 3 cm. Step IV: At C, draw \angle BCZ = 120° such that it meets AX at D.

The quadrilateral so obtained is the required quadrilateral.



Practical Geomentry (constructions) Ex 18.5 Q2

Answer:

We know that the sum of all the angles in a quadrilateral is 360.

i.e.,
$$\angle A + \angle B + \angle C + \angle D = 360^{\circ}$$

$$\Rightarrow \angle C = 105^{\circ}$$

Steps of construction:

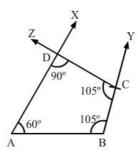
Step I: Draw AB = 5.5 cm.

Step II: Construct $\angle XAB = 60^{\circ}$ at A and $\angle ABY = 105^{\circ}$.

Step III: With B as the centre and radius $3.7~\mathrm{cm}$, cut off BC = $3.7~\mathrm{cm}$.

Step IV : At C, draw $\angle BCZ = 105^{\circ}$ such that it meets AX at D.

The quadrilateral so obtained is the required quadrilateral.



Practical Geomentry (constructions) Ex 18.5 Q3

Answer:

We know that the sum of all the angles in a quadrilateral is 360.

i.e.,
$$\angle P + \angle Q + \angle R + \angle S = 360^{\circ}$$

$$\Rightarrow \angle Q = 75^{\circ}$$

Steps of construction:

Step I: Draw PQ = 3.5 cm.

Step II: Construct $\angle XPQ = 105^{\circ}$ at P and $\angle PQY = 75^{\circ}$ at Q.

Step III : With Q as the centre and radius $6.5~\mathrm{cm},~\mathrm{cut}$ off $\mathrm{QR}=6.5$

Step IV: At R, draw \(\text{QRZ} = 105\) such that it meets PX at S.

The quadrilateral so obtained is the required quadrilateral.

