CHAPTER 4

Practical Geometry

To construct a parallelogram when its adjacent sides and a diagonal are given:

The opposite sides of a parallelogram are equal. Therefore the construction of this parallelogram can be considered as SSSSD case of construction of a quadrilateral.

Example:

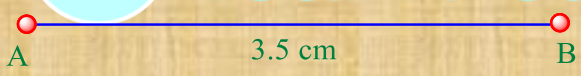
Construct a parallelogram ABCD, given AB = 3.5 cm, BC = 4.2 cm, AC = 6 cm.

Sol.

Draw a rough figure and label it with the given measurements as shown. Follow the given steps to construct the quadrilateral.

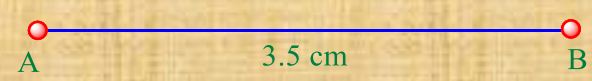
Step I:

Draw a line segment AB = 3.5 cm



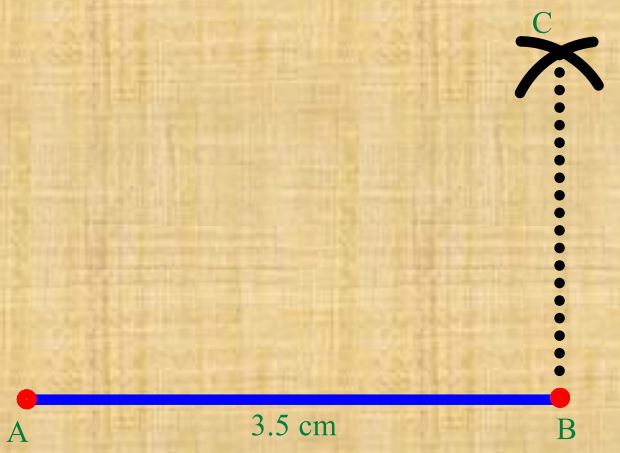
Step II:

With ‘A’ as centre and radius 6 cm, draw an arc.



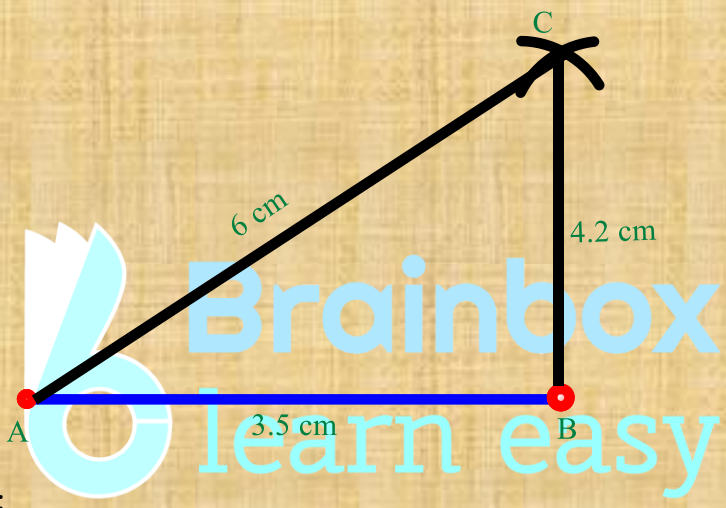
Step III:

With ‘B’ as centre and radius 4.2, draw another arc to cut the previous arc at ‘C’.



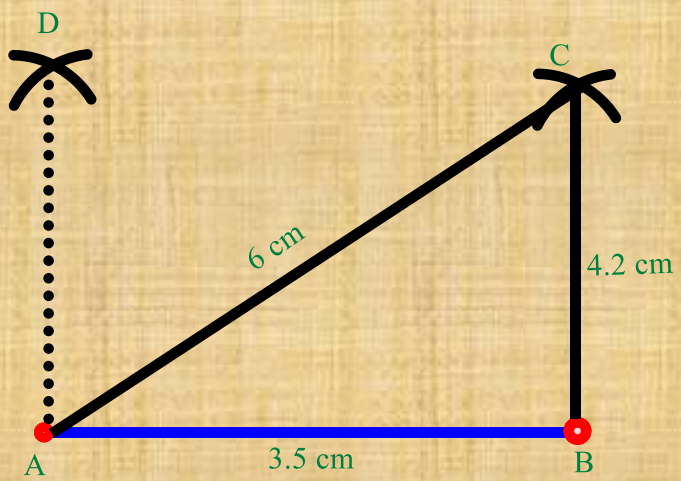
Step IV:

Join AC and BC. ΔABC is formed.



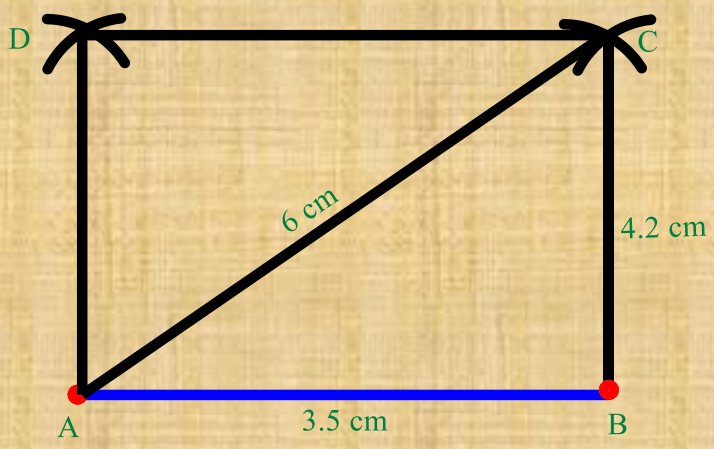
Step V:

With ‘C’ as centre and radius 3.5 cm, draw an arc and ‘A’ as centre radius 4.2 cm draw an arc to cut the previous arc at ‘D’.



Step VI:

Join AD and CD.



Thus ABCD formed is the required parallelogram.