Constructions Ex 17.1 Q1

Answer :

Steps of construction:

Draw angle BAC = 50° such that AB = 5 cm and AC = 7 cm.

Cut an arc through C at an angle of 50°.

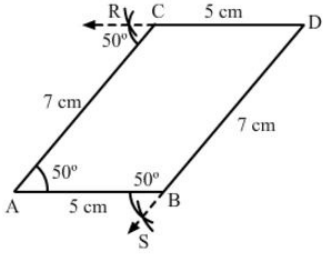
Draw a straight line passing through C and the arc. This line will be parallel to AB since $\angle CAB = \angle RCA = 50^\circ$.

Alternate angles are equal; therefore the line is parallel to AB.

Again through B, cut an arc at an angle of 50° and draw a line passing through B and this arc and say this intersects the line drawn parallel to AB at D.

$\angle SBA = \angle BAC = 50^\circ$, since they are alternate angles. Therefore BD||AC.

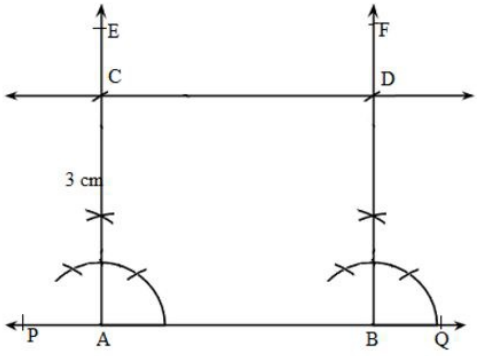
Also we can measure BD = 7 cm and CD = 5 cm.



Constructions Ex 17.1 Q2

Answer :

1. Draw a line PQ.
2. Take any two points A and B on the line.
3. Construct $\angle PBF = 90^\circ$ *and* $\angle QAE = 90^\circ$.
4. With A as centre and radius 3 cm cut AE at C.
5. With B as centre and radius 3 cm cut BF at D.
6. Join CD and produce it on either side to get the required line parallel to AB and at a distance of 5 cm from it.



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