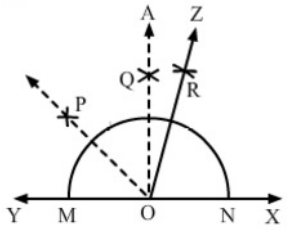
Exercise 14B

(vii)



Steps for construction:

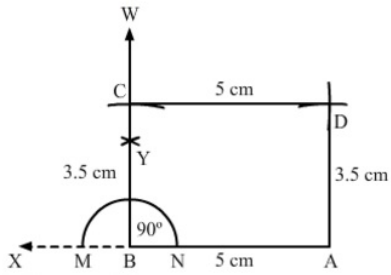
1. Draw a line XY and take a point O.
2. With O as the centre and any convinient radius, draw an arc cutting XY at M and N.
3. With N as the centre and the same radius, draw an arc.
4. With M as the centre and the same radius as before, draw another arc cutting the previously drawn arc at Q.
5. Draw QO.
6. Draw PO bisector of $\angle YOA$.
7. Draw ZO bisector of $\angle POX$.

$\therefore \angle XAZ = 67.5^\circ$

Q5

Answer :

Construction steps:



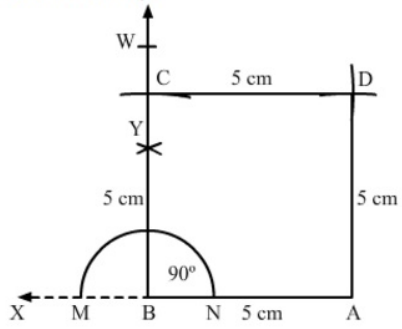
1. Draw a ray AX.
2. With A as the centre, cut the ray AX at B such that AB is equal to 5 cm.
3. With B as the centre and any convenient radius, draw an arc cutting AX at M and N.
4. With N as the centre and radius more than half of MN, draw an arc.
5. With M as the centre and the same radius as before, draw another arc to cut the previous arc at Y.
6. Draw BY and produce it to W.
7. With B as the centre and a radius of 3.5 cm, cut ray BW at point C.
8. With C as the centre and a radius of 5 cm, draw an arc on the right side of BC.
9. With A as the centre and a radius of 3.5 cm, draw an arc cutting the previous arc at D.
10. Join CD and AD.

ABCD is the required rectangle.

Q6

Answer :

Construction steps:



1. Draw a ray AX.
2. With A as centre cut the ray AX at B such that AB=5 cm
3. With B as centre and any convenient radius,draw an arc cutting AX at M and N.
4. With N as centre and radius more than half of MN draw an arc.
5. With M as centre and the same radius as before,draw another arc to cut the previous arc at Y.
6. Join BY and produced it to W.
7. With B as centre and radius 5 cm cut ray BW at point C.
8. With C as centre and radius 5 cm draw an arc on right side of BC.
9. With A as centre and radius 5 cm draw an arc cutting the previous arc at D.
10. Join CD and AD.

ABCD is required square.

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