



Exercise 14A

Q3

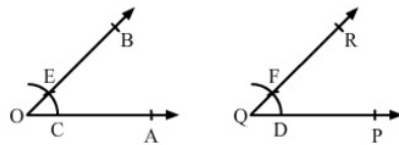
Answer :

Here $\angle AOB$ is given.

Steps for construction:

1. Draw a ray QP .
2. With O as the centre and any suitable radius, draw an arc cutting OA and OB at C and E , respectively..
3. With Q as the centre and the same radius as in step (2), draw an arc cutting QP at D .
4. With D as the centre and radius equal to CE , cut the arc through D at F .
5. Draw QF and produce it to point R .

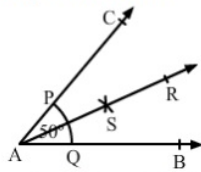
$\therefore \angle PQR = \angle AOB$



Q4

Answer :

Steps for construction:

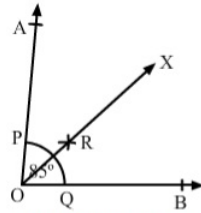


1. Draw $\angle BAC = 50^\circ$ with the help of protractor.
 2. With A as the centre and any convenient radius, draw an arc cutting AB and AC at Q and P , respectively.
 3. With P as the centre and radius more than half of PQ , draw an arc.
 4. With Q as the centre and the same radius as before, draw another arc cutting the previously drawn arc at a point S .
 5. Draw SA and produce it to point R .
- Then, ray AR bisects $\angle BAC$.

Q5

Answer :

Steps for construction:

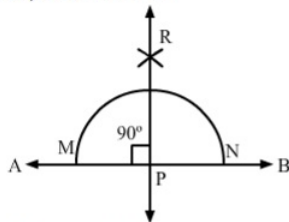


1. Draw $\angle AOB = 85^\circ$ with the help of a protractor.
 2. With O as the centre and any convenient radius, draw an arc cutting OA and OB at P and Q, respectively.
 3. With P as the centre and radius more than half of PQ, draw an arc.
 4. With Q as the centre and the same radius as before, draw another arc cutting the previously drawn arc at a point R.
 5. Draw RO and produce it to point X.
- Then, ray OX bisects $\angle AOB$.

Q6

Answer :

Steps for construction:

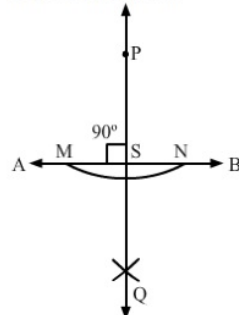


1. Draw a line AB.
 2. Take a point P on line AB.
 3. With P as the centre, draw an arc of any radius, which intersects line AB at M and N, respectively.
 4. With M as the centre and radius more than half of MN, draw an arc.
 5. With N as the centre and the same radius as in step (4), draw an arc that cuts the previously drawn arc at R.
 6. Draw PR.
- PR is the required line, which is perpendicular to AB.

Q7

Answer :

Steps for construction:



1. Draw a line AB.
 2. Take a point P outside AB.
 3. With P as the centre and a convenient radius, draw an arc intersecting AB at M and N, respectively.
 4. With M as the centre and radius more than half of MN, draw an arc.
 5. With N as the centre and the same radius as in step (4), draw an arc cutting the previously drawn arc at Q.
 6. Draw PQ meeting AB at S.
- PQ is the required line that passes through P and is perpendicular to AB.

***** END *****