

Angles



When two rays have a common initial point, an angle is formed. The common initial point is called the vertex of the angles, and the two rays forming the angle are called the arms or sides of the angle. An angle is represented by the symbol ' \angle '.



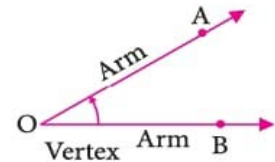
How to form an angle?

Step 1: Draw two rays starting from the same initial point O.

Step 2: Name them as \vec{OA} and \vec{OB} . These rays are arms or sides of the angle.

Step 3: An angle will be formed with O as vertex of the angle

The symbol ' \angle ' is use to denote an angle and write the angle $\angle AOB$ as $\angle AOB$ or $\angle BOA$.



Naming of an Angle: In naming an angle, the vertex is always written in the middle. We can also name an angle by simply writing its vertex.

Let us see some examples of angles:

Example: Name each of the following angles in four different ways:

(i) $\angle ABC$

$\angle CBA$

$\angle B$

$\angle 4$

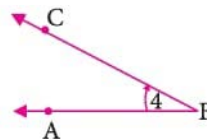
(ii) $\angle PQR$

$\angle RQP$

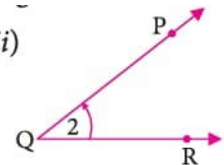
$\angle Q$

$\angle 2$

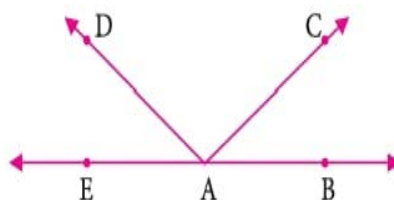
(i)



(ii)



Example: How many angles are there in the given figure?



Solution: There are six angles $\angle BAC$, $\angle CAD$, $\angle DAE$, $\angle EAC$, $\angle DAB$ and $\angle EAB$.