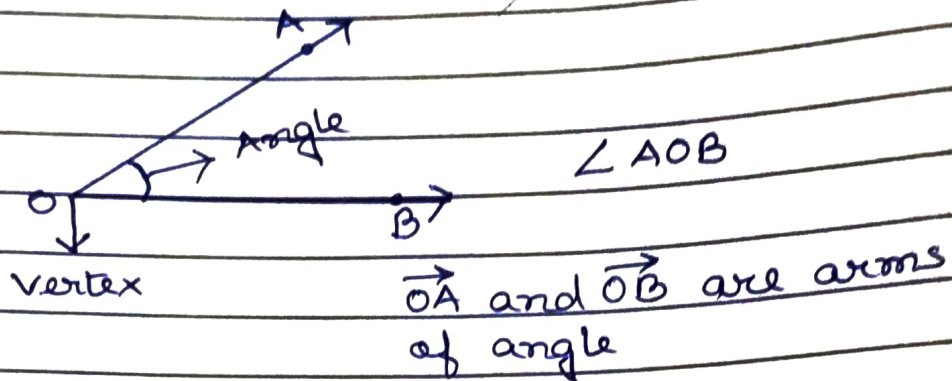


Ch-3: Angles as turns

ANGLES AND ITS TYPES:

ANGLE: An angle is the space formed when two lines, rays or line segments meet at a common endpoint



TYPES OF ANGLES

Type of Angle	Description	Example
ACUTE ANGLE	An angle that is less than 90°	
RIGHT ANGLE	An angle that is exactly 90°	
OBTUSE ANGLE	An angle that is greater than 90° and less than 180°	
STRAIGHT ANGLE	An angle that is exactly 180°	
REFLEX ANGLE	An angle greater than 180° and less than 360°	
COMPLETE ANGLE	An angle that is exactly 360°	

WORKSHEET-1

1) Write the name of types of the following angle

35° -

119° -

270° -

180° -

40° -

130° -

90° -

360° -

25° -

200° -

COMPLEMENTARY ANGLES: If sum of two angles is 90° , then they are called complementary angles

Example: $\angle A = 30^\circ$, $\angle B = 60^\circ$

$\therefore \angle A$ and $\angle B$ are complementary angles

$\angle A$ is called complement of $\angle B$

$\angle B$ is called complement of $\angle A$

SUPPLEMENTARY ANGLES: If sum of two angles is 180° , then they are called supplementary angles

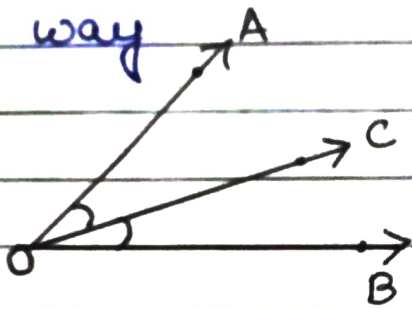
Example: $\angle A = 120^\circ$ and $\angle B = 60^\circ$

$\therefore \angle A$ and $\angle B$ are supplementary angles

$\angle A$ is called supplement of $\angle B$

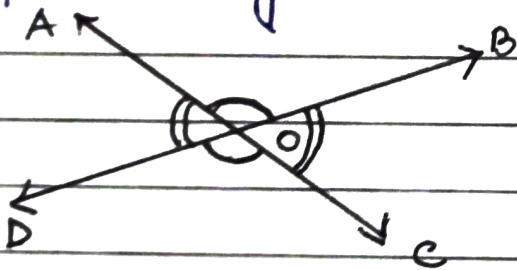
$\angle B$ is called supplement of $\angle A$

- ADJACENT ANGLES: Adjacent angles are two angles that have a common side and a common vertex but do not overlap in any way



In the given figure $\angle AOC$ and $\angle COB$ are adjacent angles

- VERTICALLY OPPOSITE ANGLES: When two lines intersect, the opposite angles are called vertically opposite angles and they are equal.



In the given figure, $\angle AOB$ and $\angle DOC$ are vertically opposite angles. Also, $\angle AOC$ and $\angle BOD$ are vertically opposite angles.

WORKSHEET 2

MCQ:-

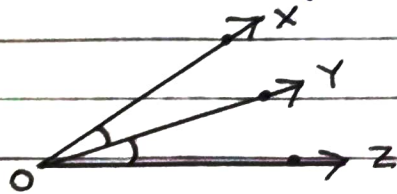
1) Choose the pair of Complementary angles from the following:

- a) $30^\circ, 150^\circ$ b) $76^\circ, 14^\circ$ c) $65^\circ, 65^\circ$

2) Choose the pair of supplementary angles from the following:

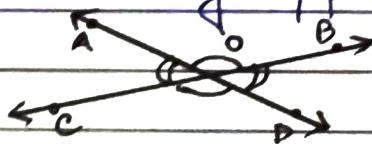
- a) $60^\circ, 30^\circ$ b) $120^\circ, 30^\circ$ c) $75^\circ, 105^\circ$

3) In the figure given below $\angle XOY$ and $\angle YOZ$ shows _____ angle.



- a) Vertically opposite angle b) Adjacent angle
c) Straight angle.

4) In the figure given below which angles show vertically opposite angle?



- a) $\angle AOB, \angle COD$ b) $\angle AOB, \angle BOD$ c) $\angle AOC, \angle COD$

5) The complement of 60° will be _____.

- a) 20° b) 30° c) 40°

6) The supplement of 140° will be _____.

- a) 40° b) 50° c) 30°