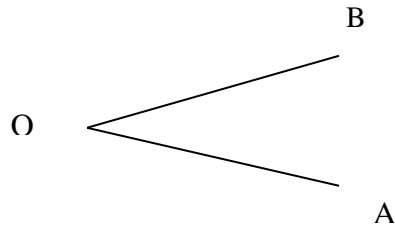


CHAPTER FOUR

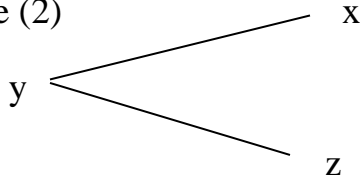
BASIC GEOMETRY

Angle: An angle is formed when two straight lines meet at a point. Example (1).



- In the above figure, the lines AO and BO meet at the point O.
- The angle formed is called angle $A\hat{O}B$ or angle $B\hat{O}A$, which can be written respectively as $\angle AOB$ or $\angle BOA$.

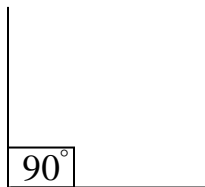
Example (2)



- The lines xy and zy meet at the point y, and the angle formed is angle xyz ($x\hat{y}z$) or angle $z\hat{y}x$ (zyx).

Types of angles:

1. Right angle or angle 90° .



The sum of angles within a right angle is 90°

2. Acute angle:

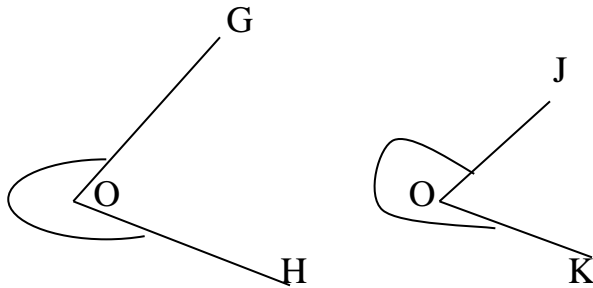
This is an angle which is less than 90° , and examples are angles 30° , 45° , 70° and 89°

3 Obtuse angle:



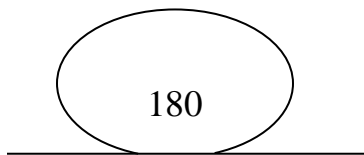
- This is an angle which is greater than 90° but less than 180°
- Examples are angles 91° , 120° , 145° , 170° and 179°

4 Reflex angle:

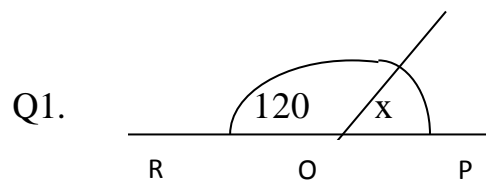


- GOH and JOK are reflex angles, which are angles which are greater than 180° but less than 360°
- Examples are angles 240° , 190° , 300° and 310°

5 Angle 180° or the straight line:



- The sum of angles or the total angles on a straight line is 180°



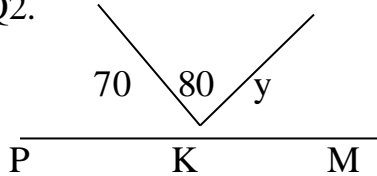
Find the angle marked x°

Soln.

Since ROP is a straight line, then the sum of angles on it = 180°

$$\Rightarrow 120^\circ + x = 180^\circ, \Rightarrow x = 180^\circ - 120^\circ = 60^\circ, \Rightarrow x = 60^\circ .o$$

Q2.



Find the angle marked y° .

Soln.

Since PKM is a straight line, then the sum of angles on it is 180° , $\Rightarrow 70^\circ + 80^\circ + y = 180^\circ$, $\Rightarrow 150^\circ + y = 180^\circ$, $\Rightarrow y = 30^\circ$.