Geometry Line and Angles

Point: - A point shows a definite position. It has no length, width or thickness. It has no shape and size .It represented by a dot (.) and named by a capital letter.

Line: - A line has no fixed length and end points. A line can be extended indefinitely in any direction. We represent a line as A B

Line Segment: - A part of a line is known as Line segment. It has two end points and definite length. We represent a line segment as A B

Ray :- A ray is a part of a line which extends indefinitely in only one direction. It has one end point. We represent a Ray as A B.

Angles

A figure formed by two rays with a common initial point is called an angle.

We measured the angle in degree. (◦) is the symbol for degree.

We measured the angle by '**protractor'**

Classification of Angles

1) Acute angle – An angle which measures between 0° and 90° is called an Acute angle.

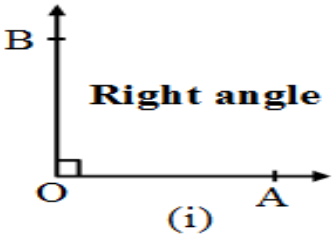
2) Right angle – An angle which measures 90° is called a Right angle.

3) Obtuse angle – An angle which measures between90° and 180° is called an Obtuse angle.

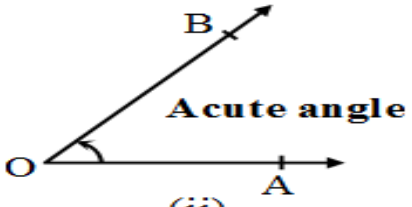
4) Straight angle – An angle which measures 180° is called a straight angle.
A Straight angle= 2 right angle

5) Reflex angle - An angle which measures more than 180.

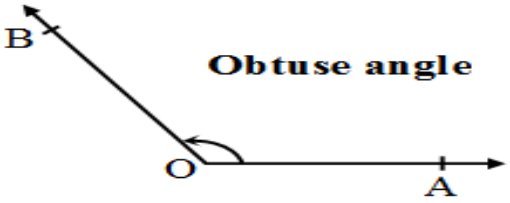
6) Complete angle - An angle which measures 360 is called a complete angle.
(A complete angle = 4 right angle)



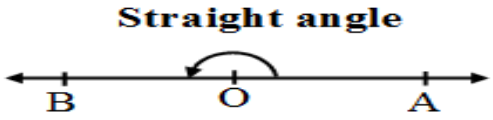
(i)



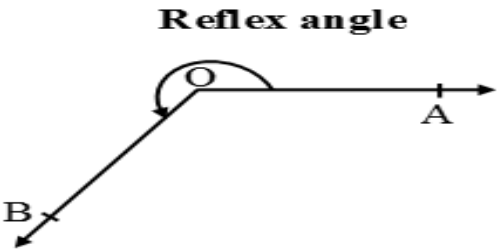
(ii)



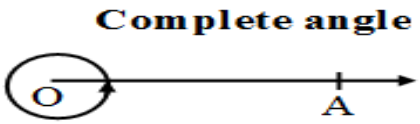
(iii)



(iv)

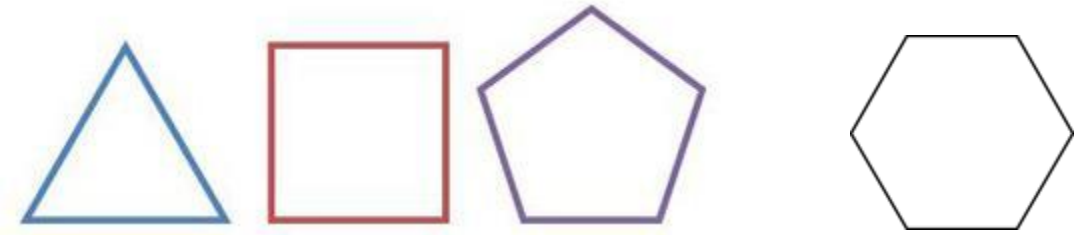


(v)



(vi)

Polygons



A three sided polygon is called a **Triangle**

A four sided polygon is called a **Quadrilateral**

A five sided polygon is called a **Pentagon**

A six sided polygon is called a **Hexagon**

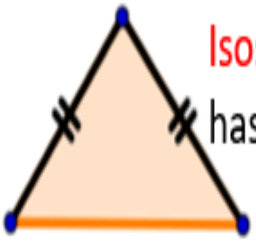
TRIANGLE :

- A triangle is a simple closed figure formed by joining three non collinear points.
- A triangle has 3 sides , 3 vertice and 3 angles.
- The sum of the angles of a triangle is 180*.

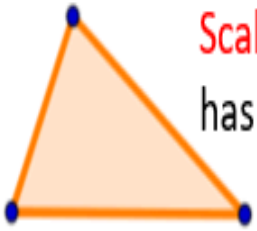
Types of Triangles

By Side

Equilateral Triangle
has three equal sides

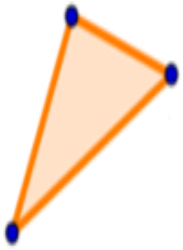


Isosceles Triangle
has two equal sides



Scalene Triangle
has no equal sides

By Angle



Acute triangle
has three angles < 90°

Right triangle
has one angle = 90°

Obtuse triangle
has one angle > 90°