I. Important Concepts/ Result

- **Measuring Line Segments**

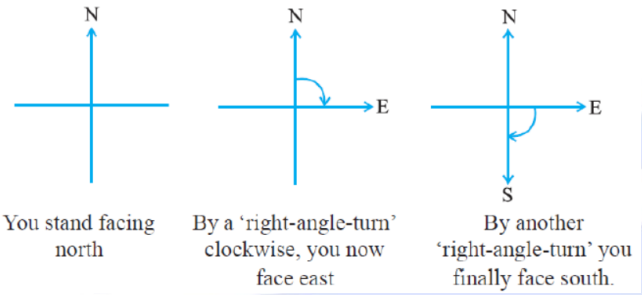
  (i) Comparison by observation

  (ii) Comparison by Tracing

  (iii) Comparison using Ruler and a Divider

- **Angles –Right and Straight**

  You have turned through a **right angle**.

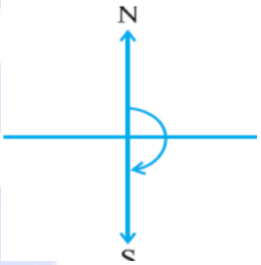


You stand facing north | By a 'right-angle-turn' clockwise, you now face east | By another 'right-angle-turn' you finally face south.

  The turn from north to east is by a **right angle.**

  The turn from north to south is by two right angles; it is called a **straight angle**. (NS is a straight line!)

- **Angles – Acute, Obtuse and Reflex**



  An angle smaller than a right angle is called an acute angle. These **acute angles.**

  Examples of Acute angle

Roof top | Sea-saw | Opening book

  If an angle is larger than a right angle, but less than a straight angle, it is called **an obtuse angle**. These are obtuse angles.

  Examples of Obtuse angle

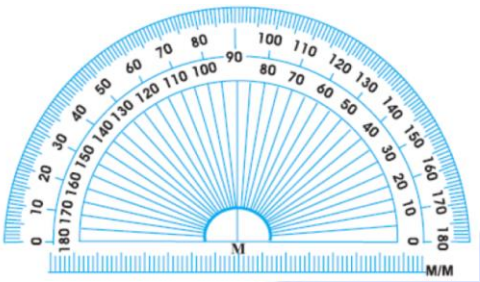
House | Book reading desk

- **Measuring Angles**

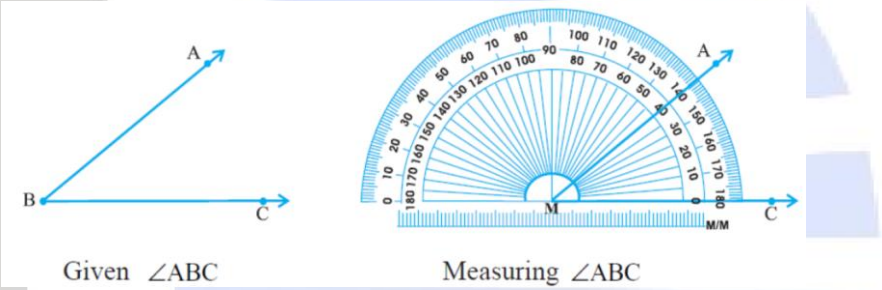
The measure of angle We call our measure, **degree measure**. One complete revolution is divided into 360 equal parts. Each part is a **degree**. We write 360° to say three hundred sixty degrees**.**

- **The Protractor**

The curved edge is divided into 180 equal parts. Each part is equal to a degree. The markings start from 0° on the right side and ends with 180° on the left side, and vice-versa.



How to measure an angle using protractor?



- **Perpendicular Lines**

When two lines intersect and the angle between them is a right angle, then the lines are said to be **perpendicular**. If a line AB is perpendicular to CD, we write **AB ⊥ CD**.

- **Examples of Perpendicular Lines**

Some examples are: the sides of a set square, the arms of a clock, the corners of the blackboard, window and the Red Cross symbol. Alphabets L and T are models for perpendicular lines.

- **Classification of Triangles**

On the basis of angles

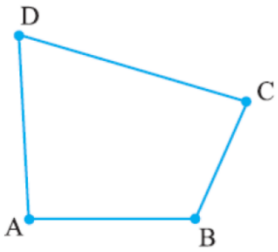
1. Acute angled triangle: A triangle with all angles are acute

2. Right triangle: A triangle whose one angle is right.

3. Obtuse angled triangle :A triangle whose one angle is obtuse.

On the basis of sides:

1. Equilateral triangle 2. Isosceles triangle 3. Scalene triangle.



- **Quadrilaterals**
  - It is a polygon which has four sides
  - Opposite angles $\angle A$ and $\angle C$; $\angle B$ and $\angle D$
  - Opposite sides AB and CD; AD and BC
  - Adjacent angles$\angle A$ and $\angle B$
  - Adjacent sides AB and BC
  - You have two set-squares in your instrument box. **One is 30° – 60° – 90° set-square, the other is 45°– 45°– 90° set square.**
  - Using two or more set-squares we can make various quadrilaterals such as **RECTANGLE, SQUARE,**
- **PARALLELOGRAM, RHOMBUS, TRAPEZIUM**

Polygons - it is a closed figure made of line segments only -identify a polygon -naming polygon

Number of sides	Name	Illustration
3	Triangle	
4	Quadrilateral	
5	Pentagon	
6	Hexagon	
8	Octagon	