



Provincial Department Of Education – Sabaragamuwa
WEEKLY SCHOOL

Subject : Mathematics

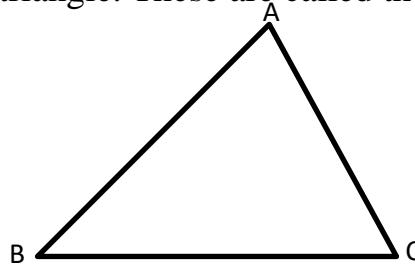
Grade 7

Week : 10th of 2nd Term

Unit 14 – Rectilinear Plane figures(2)

- **Triangles**

- a polygon consisting of three straight line segments is a triangle. There are three angles and three sides in a triangle. These are called the elements of the triangle.



- AB , BC and CA are the three sides of the triangle ABC . Furthermore, $\hat{A}BC$, $\hat{B}AC$ and $\hat{A}CB$ are the three angles of the triangle ABC .

Activity 1

Step 1 - Complete the table given below by naming the sides and the angles of each of the given triangles.

| Triangle | Sides | Angles |
|----------|---------------|------------------------------------|
| ABC | $AB, AC, BC,$ | $\hat{A}BC, \hat{B}AC, \hat{A}CB,$ |
| PQR | | |
| LMN | | |

- **Classification of triangles according to the length of the sides**

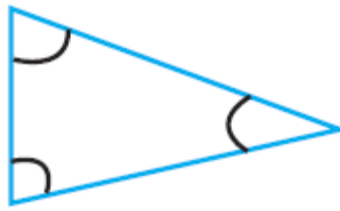
A triangle of which all three sides are equal in length is known as an **equilateral triangle**.

A triangle of which two sides are equal in length is known as an **isosceles triangle**.

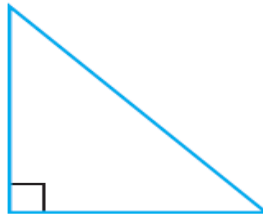
A triangle of which all three sides are unequal in length is known as a **scalene triangle**.

○ **Classification of triangles according to the angles**

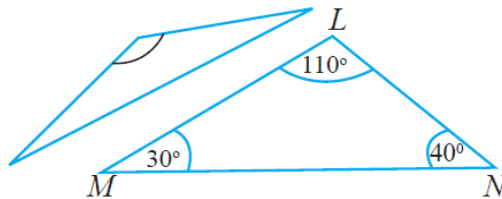
- Acute angled triangle - If all three angles of a triangle are acute angles, then the triangle is called an **acute angled triangle**.



- Right angled triangle - If one angle of a triangle is a right angle, then the triangle is called a **right angled triangle**. The other two angles of a right angled triangle are acute angles.



- Obtuse angled triangle - If one angle of a triangle is an obtuse angle, then the triangle is called an **obtuse angled triangle**. The other two angles of an obtuse angled triangle are acute angles.



Activity 2

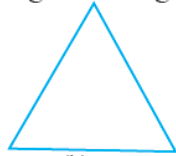
Step 1 - Obtain a right angled corner by folding a piece of paper.

Step 2 - Using the right angled corner, compare the angles of the below given triangles.

Step 3 - Accordingly, write down for each of the triangles whether it is an acute angled triangle, a right angled triangle or an obtuse angled triangle.



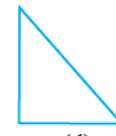
(a)



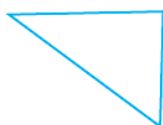
(b)



(c)



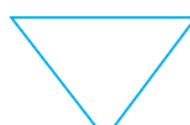
(d)



(e)



(f)



(g)



(h)

- **Do all the exercises in your text book 14.4 and 14.5**