

TRIANGLES

Activity – 6(i)

1. What we have to do?

To verify the Basic Proportionality Theorem (Thales theorem) by using triangle cut outs and ruled paper sheets.

2. What is required?

Ruled sheets of paper, coloured paper, sketch pens, geometry box, glue stick, a pair of scissors

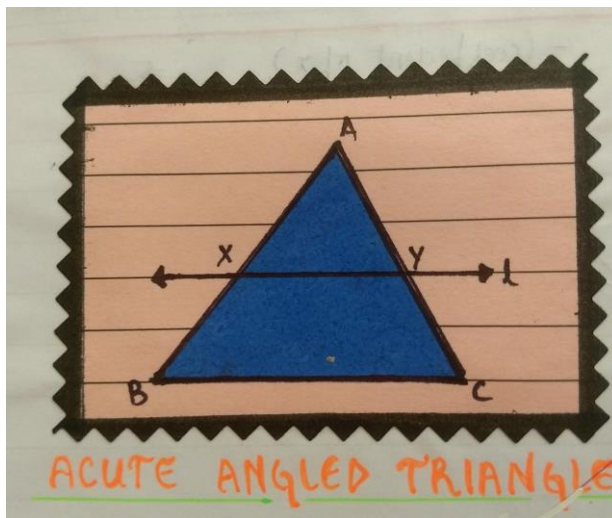
3. Time required: 30 min

4. What do we need to know?

Construction of triangles, drawing a line parallel to a given line passing through a given point

5. How will you proceed?

- 1) Cut an acute-angled triangle say ABC from a coloured sheet of paper.
- 2) Paste the $\triangle ABC$ on ruled sheet such that the base of the triangle coincides with the ruled line.
- 3) Mark two points X and Y on AB and AC such that $XY \parallel BC$.
- 4) Using the ruler measure the length of AX, XB, AY and YC.
- 5) Repeat the same for Right angled triangle and Obtuse-angled triangle.



6. What have you observed?

Complete the following table to record your observation:

$\triangle ABC$	AX	XB	AY	YC	$\frac{AX}{XB}$	$\frac{AY}{YC}$	Result
Acute							
Obtuse							
Right							

7. What have you learnt?

From the above Observation table, it is observed that in each set of triangles _____

8. What would you be interested in doing?

Perform the same activity by taking an equilateral triangle of side 6 cm and draw conclusion.

Real Life Applications:

The above concept is used in proving many more geometrical results in Mathematics. In real life Tailoring, Architecture, Fashion designing are some areas where this concept is readily used.
