

ACTIVITY – CONSTRUCTIONS

1. What we have to do?

To construct a triangle whose perimeter and base angles are given and a circle passing through the vertices of the triangle so obtained.

2. What is required?

Paper , Geometry kit

3. What do you need to know?

Construction of basic angles and bisector of lines and angles.

4. How will you proceed?

Construct a triangle ABC with perimeter 12 cm and base angles 60° and 45°

Shade the triangle so obtained.

Construct a circle passing through the vertices of the triangle so formed.

5. What have you observed?

Which type of triangle is formed? (scalene, equilateral or isosceles.)

What is the measure of each side of a triangle?

6. What have you learnt?

7. What would you be interested in doing?

Construct a triangle PQR with $PQ=5$ cm, $\angle P = 45^\circ$ and $QR + PR = 5$ cm. Shade the triangle and construct circumcircle of the triangle so formed.

Real life application :- It is the basic unit of engineering structures like bridges , slope of ground that looks like triangle , construction of staircases, traffic signs are mostly triangles , pyramids , truss bridges, sailing boat etc.