

CLASS 7 DOING MATHS ACTIVITY WITH ORIGAMI SHEET. IT WAS AN ACTIVITY TO SHOW EXTERIOR ANGLE OF A TRIANGLE IS EQUAL TO THE SUM OF OPPOSITE INTERIOR ANGLES





Activity 1
Square Angle Property

Let us verify that an exterior angle of a triangle is equal to the sum of its two opposite interior angles. We will use a triangle ABC.

Construction: Draw an exterior angle at vertex A by extending side BA to point D. Join DC.

Proof: In $\triangle ABC$,
 $\angle A + \angle B + \angle C = 180^\circ$ (Sum of angles in a triangle)
 $\angle A + \angle B = 180^\circ - \angle C$ (Subtracting $\angle C$ from both sides)
Now, $\angle DAC + \angle BAC = 180^\circ$ (Linear pair)
 $\angle DAC + \angle A = 180^\circ - \angle A$ (Subtracting $\angle A$ from both sides)
 $\angle DAC = 180^\circ - \angle A - \angle A$ (Subtracting $\angle A$ from both sides)
 $\angle DAC = 180^\circ - 2\angle A$ (Subtracting $\angle A$ from both sides)
 $\angle DAC = 180^\circ - \angle A - \angle B$ (Subtracting $\angle A$ from both sides)
 $\angle DAC = \angle B + \angle C$ (Subtracting $\angle A$ from both sides)







