# CHAPTER 3: TRANSFORMATIONS

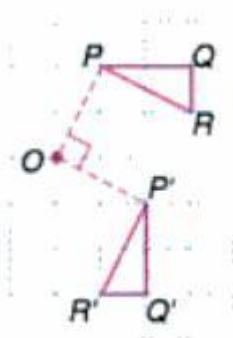- Translation is a transformation in which all points are moved to a new position through h unit parallel to the x-axis and k unit parallel to the y-axis. It is written as translation.

|	Positive	Negative
h	h units to the right	h units to the left
k	k units upwards	k units downwards

- Reflection is a transformation in which all the points on a plane are flipped over onto the same plane in the axis of the reflection. For example, reflect the object in the y-axis(the line, x=0)
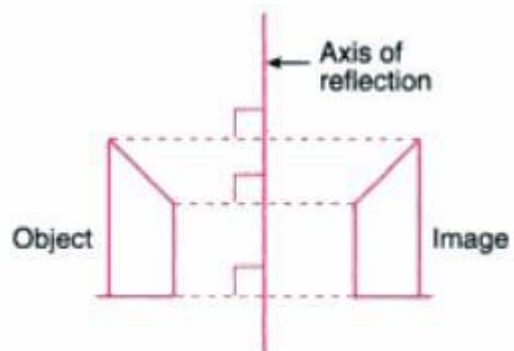
- Rotation is a transformation in which all the points rotate in the same direction through the same angle about a point. For example, rotate the triangle PQR about O through 90 degree clockwise.

- Enlargement is a transformation in which all the point of an object extend from the centre of enlargement at a constant ratio. For example, enlargement of square ABCD at O with scale factor 2.
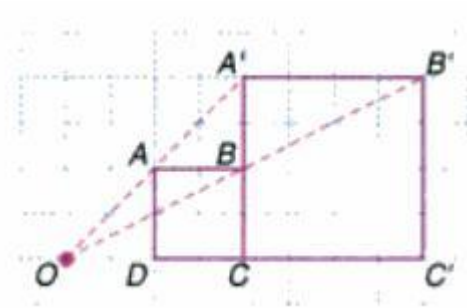
Combination of Transformation

If A and B are two transformations:

AB = Transformation B, followed by transformation A.

BA = Transformation A, followed by transformation B.

A^2 = Transformation A executed twice