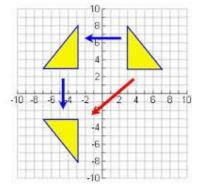
# **Computer Graphics Assignment 2 (Max 3 Students per Group)**

## A. Transformation

- Using Bresenham Line Algorithm, draw a polygon of any shapes (Max side 9).
- Using matrices, apply the following 2D transformation on the shapes:
  - i) Translation
  - ii) Normal Rotation
  - iii) Rotation about a Fixed Point
  - iv) Normal Scaling
  - v) Scaling about a Fixed Point
  - vi) Shear
  - vii) Reflections



**Bonus:** Try implementing an animated Transformation, i.e, animating the transformation from shape A to T(A).

## B. Filling Algorithms

- Using Bresenham Line Algorithm, draw a polygon of any shapes (Max side 9).
- Implement the following filling algorithms on the shape.
  - i) flood fill algorithm
  - ii) boundary fill approach- 8-connected
  - iii) scan line algorithm

C. Enter/Modify your group details in case of changes at the following link:

### Group A -

 $\frac{https://docs.google.com/spreadsheets/d/1ZWP8nxdjPe8S7HsqxZSCxIopwZ1U1b8bLhu2YV}{XvM1I/edit?usp=sharing}$ 

### Group B –

https://docs.google.com/spreadsheets/d/1pNFmCyVDx-5u8XTMiHAOZ8BxvWfp7V7coEb58oB-dmA/edit?usp=sharing