# CS 302/352: Computer Graphics and Visualization

## Assignment #5

# **Transformations on a Polygon**

## 1. Define a Polygon

- Take user input for the number of vertices (n).
- Enter n points as (x,y) coordinates of the polygon.

### 2. Rotation Operations

- Take user input for an angle A (in degrees) to rotate the polygon about the origin.
- Take user input for a point (x1,y1).
- Take user input for an angle **B** (in degrees) to rotate the polygon about the (x1,y1).

#### 3. Translation Operation

• Take user input for a translation to point coordinates (X2, Y2).

#### **Instructions**

- Include comments in your code explaining each step.
- Provide code as well as output screenshot.
- Submit your answers in a pdf file with format: assignment5\_<roll. no.>.pdf.