Computer Graphics Lab
Lab 3 Manual

[You need to submit your source files for Task 1 and Task 2. Also, you'll need to submit a report in .txt format where you will mention how you did Task 1 and Task 2.
Write Task 3 in the report.
Don't zip the files, just add and hand in the assignment. Name the source file mentioning your registration number.
*** Provide screenshots of your output for Task 1 and Task 2]*
*** You may take the help of the textbook but not any online resources*
*** Use black background and white for scan converting color*

Task 1: 35%

Let's assume, a region is defined by its interior points. The following code portion defines the interior point set.
Now, fill this region using the flood-fill algorithm taking (2,3) as the seed. You may regard this region as an 8-connected region.

```
for(int i=1; i<=5; i++)
    for(int j=1; j<=10; j++)
        pair<int, int> point = {i,i+j};
```

Task 2: 55%

You're given the vertices of a polygon in a counterclockwise direction.

$$V = \{(0, 0), (-4, 2), (-2, 6), (1, 3), (4, 4), (6, 2), (6, 0)\}$$

Use the scan line polygon algorithm for coloring this polygon.

Task 3: 10%

Compare the complexity of Task 1 and Task 2 for coloring a polygon.