

1. Relevant Screenshots:

Approach:

1. take n as input
2. take n pairs of integers
3. if n=1 print invalid input
4. initialize area variable to 0
5. iterate through inputs for i=0 to n-1
 1. let current coordinates be x,y and next be x1,y1
 2. if y1>y then
 1. $\text{area} += (y1 - y) \times (x1 - x) \times 1/2 + y \times (x1 - x)$
 3. else
 1. $\text{area} += (y - y1) \times (x1 - x) \times 1/2 + y1 \times (x1 - x)$
6. print area

Relevant Screenshots:

```
Enter number of points: -2  
  
Bad number of points!  
Number of Points must be greater than 0...  
Program Terminated
```

1. Bad input:

```
Enter number of points: 3  
Enter Data for point no. 1  
X coordinate : 1  
Y coordinate : 1  
Area so far : 0  
Enter Data for point no. 2  
X coordinate : 2  
Y coordinate : 2  
Area so far : 1.5  
Enter Data for point no. 3  
X coordinate : 3  
Y coordinate : 3  
Area so far : 4  
Final calculated Area is : 4  
Program Terminated
```

2. Proper input: