

```
# By submitting this assignment, I agree to the following:
# "Aggies do not lie, cheat, or steal, or tolerate those who do"
# "I have not given or received any unauthorized aid on this assignment"
#Iain Wang
#Section 510
#227004716
```

- I will have 5 points, including the origin O, point A, point C, point D, and point E.
- The user will decide the values of the strains and the code will decide which slope to solve the stress for. All inputs have to be greater than or equal to zero.
- The curve is increasing linearly from point O to point A.
  - PointO = (0, 0)
  - PointA = (StrainA, StressB)
  - SlopeOA = Distance formula for point A to point O
- PointB and PointA are the same thing so we will include both as PointA.
- The curve constant with a slope of zero from point A to point C.
  - PointC = (StrainC, StressC)
  - SlopeCB = Distance formula for point C to point A.
- The curve is increasing linearly from point C to point D.
  - PointD = (StrainD, StressD).
  - SlopeDC = Distance formula for point D to point C
- The curve is decreasing linearly from point D to point E.
  - Point E = (StrainE, StressE).
  - SlopeED = Distance formula for point E to point D.

#### RECORDED POINTS

- PointA = (0.01, 42)
- PointC = (0.06, 42)
- PointD = (0.17, 60)
- PointE = (0.26, 50)

#### TEST CASES

1. Strain = 0.01 Stress = 42
2. Strain = 0.06 Stress = 43
3. Strain = 0.17 Stress = 50
4. Strain = 0.26 Stress = 60
5. Strain = 0 Stress = 0
6. Strain = 0.05 Stress = 42
7. Stress = 0.1 Stress = about 50
8. Stress = 0.25 Stress = about 55