

### Numerical Outputs for HW7 Problem 1

Displacements, Angles of Rotation =  
[-0.0, 0.0, -0.001667, -0.00125, 0.000833, 0.0, 0.000833]  
m, rad

Forces, Moments =  
[25000.0, 50000.0, -25000.0, 0.0, 0.0, 0.0, 0.0, 0.0]  
N, N\*m

Maximum transverse shear stress = 765465.5446 Pa

Maximum bending stress = 27667047.9925 Pa

### Numerical Outputs for HW7 Problem 2

Displacements, Angles of Rotation =  
[-0.0, 0.0, -0.0, -0.0001, -0.000167, -0.000201, 0.000212, 0.0, 0.0]  
m, rad

Forces, Moments =  
[-6026.7857, -4017.8571, 6026.7857, -8035.7143, 8035.7143, 8035.7143, -8035.7143,  
-0.0, 8035.7143, -0.0, 66964.2857, -29464.2857]  
N, N\*m

Maximum transverse shear stress = 2050354.1374 Pa

Maximum bending stress = 16303796.1384 Pa

### Numerical Outputs for HW7 Problem 3

Displacements, Angles of Rotation =  
[0.0, -0.0036, 0.0, 0.0018, -0.0288, -0.0018, -0.0003, -0.0288, 0.0006, 0.0, 0.0015]  
in, rad

Forces, Moments =  
[250.0, -0.0, 350.0, -3600.0, 75.0, 3600.0, -75.0, -0.0, 75.0, -0.0, -75.0, 1800.0,  
-75.0, -1800.0, 75.0, -0.0]  
lb, lb\*in

Maximum transverse shear stress = 147.1827 psi

Maximum bending stress = 4520.7713 psi

# Numerical Outputs for HW7 Problem 306

Displacements, Angles of Rotation =

[0.0, -0.0036, -0.047278, -0.002693, -0.072161, -0.000662, -0.06594, 0.001454,  
-0.034836, 0.002621, 0.0, 0.0018, -0.0288, -0.0018, -0.0003, -0.0288, 0.0006, 0.0,  
0.0015]

in, rad

Forces, Moments =

[250.0, 0.0, -130.0, 2736.0, 130.0, -2736.0, -10.0, 3744.0, 10.0, -3744.0, 110.0,  
3024.0, -110.0, -3024.0, 230.0, 576.0, -230.0, -576.0, 350.0, -3600.0, 75.0, 3600.0,  
-75.0, -0.0, 75.0, 0.0, -75.0, 1800.0, -75.0, -1800.0, 75.0, 0.0]

lb, lb\*in

Maximum transverse shear stress = 147.1827 psi

Maximum bending stress = 4701.6022 psi