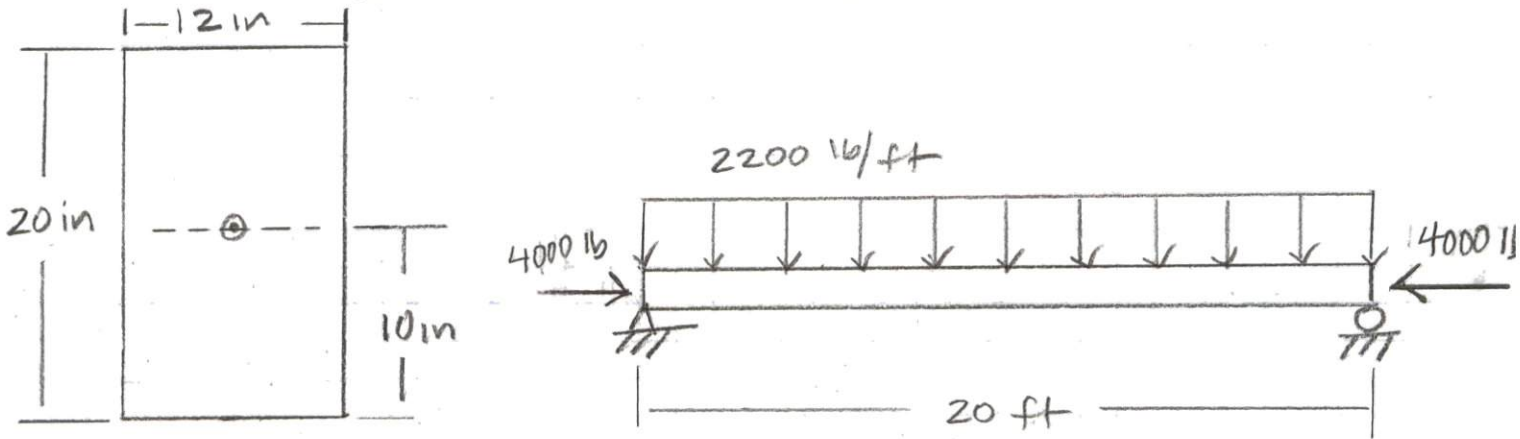


Show all work for full credit.

Name: _____

Determine the minimum and maximum combined stress in the beam shown. The axial load is applied at the centroid of the section. Locate the point of zero stress within the cross section.



Solution.

$$A = 12 \text{ in} \times 20 \text{ in} = 240 \text{ in}^2$$

$$P = -4000 \text{ lb} \text{ (constant compression throughout the beam)}$$