

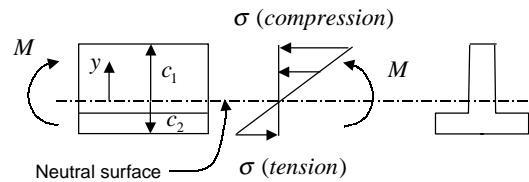
ME111
 Instructor: Peter Pinsky
 Class #6
 October 9, 2000

Today's Topics

- Bending stresses in beams
- Curved beams

Reading Assignment Juvinall 4.1 – 4.7

6.1 Bending of Straight Beams



$$\sigma = \frac{My}{I}$$

$$\sigma_{\max} = \frac{Mc_{\max}}{I} = \frac{M}{Z}$$

$$Z = \frac{I}{c}$$

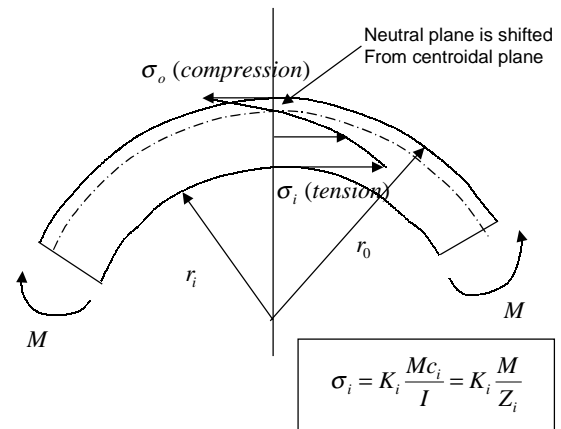
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6.2 Bending of Curved Beams

$$\sigma_o = K_o \frac{Mc_o}{I} = K_i \frac{M}{Z_o}$$



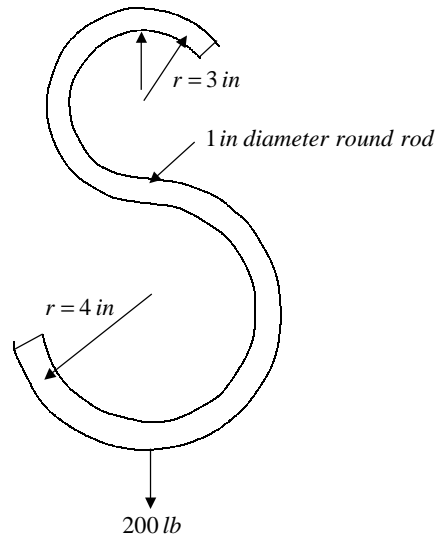
$$\sigma_i = K_i \frac{Mc_i}{I} = K_i \frac{M}{Z_i}$$

See Fig. 4.11 in Juvinall for curvature factors

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Example 6.1

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