

$$h = 4.5 \text{ m}$$

$$P = 11.0 \times 10^4 \text{ N}$$

$$F = 3.0 \times 10^5 \text{ N}$$

$$E = 2.0 \times 10^{11} \text{ N / m}^2$$

$$A = 250 \text{ cm}^2$$

$$-\frac{d}{dx} \left(EA \frac{du}{dx} \right) = 0$$