

Enter data provided from question:

$$E := 1.3 \cdot 10^{11} \cdot Pa$$

$$L := 2 \text{ m}$$

$$D := 0.28 \text{ mm}$$

$$P := 15 \text{ N}$$

Calculate cross sectional area:

$$A := \frac{\pi \cdot D^2}{4} = 0.062 \text{ mm}^2$$

Then calculate extension of wire:

$$\delta := \frac{P \cdot L}{E \cdot A} = 3.748 \text{ mm}$$