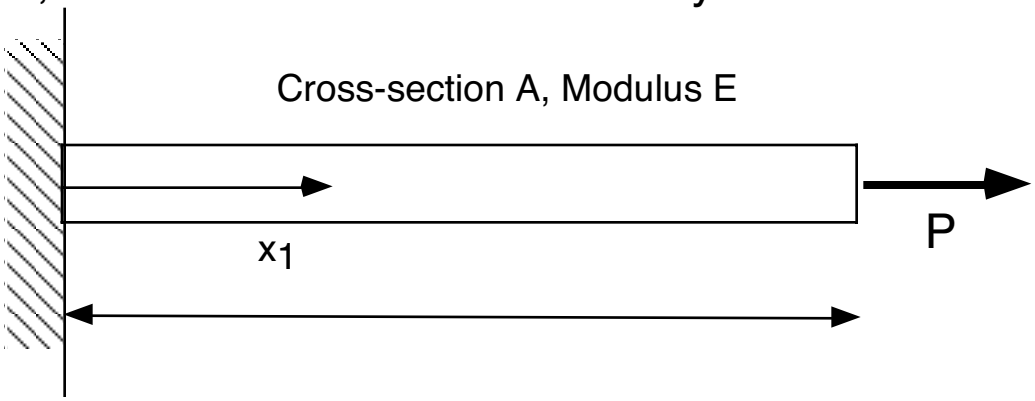
M1 Concept Question 1

A uniaxial bar, length L, cross-sectional area A, modulus E, is loaded in uniaxial tension by a force P.

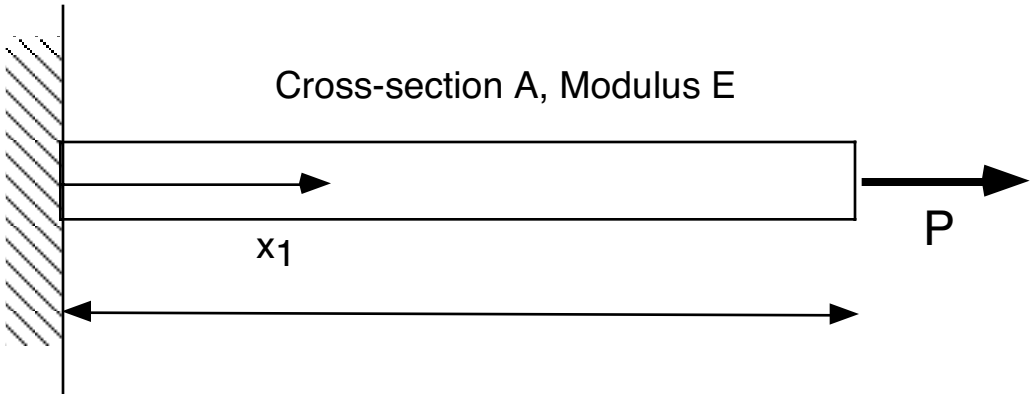


The displacement, u_1, of a point a distance x_1 from the clamped end is most completely given by:

1. $u_1 = \frac{PL}{AE}$
2. $u_1 = \frac{Px_1}{AE}$
3. $u_1 = \frac{Px_1}{AE}$ +a constant
4. $u_1 = \int \frac{P}{AE} dx_1$
5. $u_1 = \int \varepsilon_{11} dx_1$
6. Some other answer
7. I don't know/don't understand.

M1 Concept Question 1

The answer to the previous question is least correct at what point



1. $x_1=L$
2. $x_1=0$
3. $x_2, x_3 \neq 0$
4. $x_2, x_3 = 0$
5. It is correct everywhere in the bar
6. It is correct nowhere in the bar
7. I don't know/don't understand.