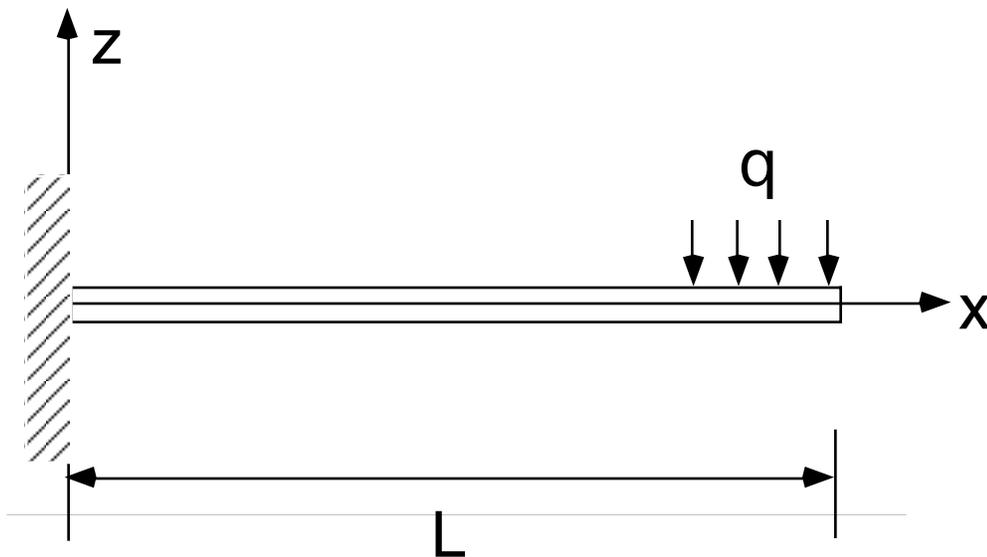


M4 Concept Question 1

A beam length L , cross sectional dimensions b (width in y direction) and h (thickness in z direction) such that $L \gg b, h$ is loaded by a distributed load, q , applied over an area of $b \times b$, near its tip.

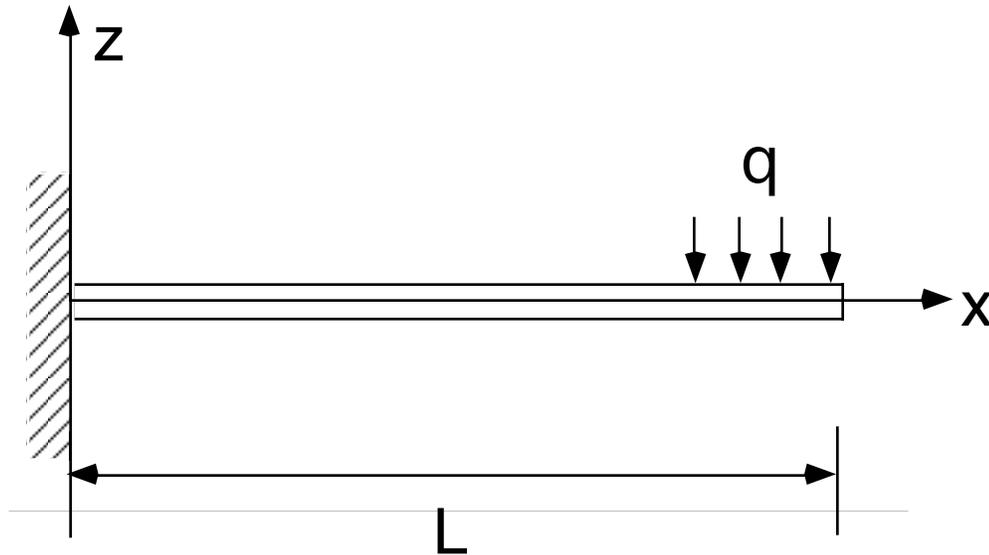


An estimate for the magnitude of σ_{zz} in the beam would be:

1. $\sigma_{zz} = 0$
2. $\sigma_{zz} = \frac{q}{b}$
3. $\sigma_{zz} = q \frac{L}{h}$
4. $\sigma_{zz} = q$
5. $\sigma_{zz} = q \frac{h}{bL}$
6. Some other answer
7. I don't know/don't understand.

M4 Concept Question 2

A beam length L , cross sectional dimensions b and h such that $L \gg b, h$ is loaded by a distributed load, q , over an area of approximately $b \times b$ (i.e. $\sigma_{zz} \sim q/b$) near its tip.



An estimate for the magnitude of σ_{xx} at the root of the beam ($x = 0$) would be:

1. $\sigma_{xx} \approx 0$
2. $\sigma_{xx} \approx \frac{L}{h} \sigma_{zz}$
3. $\sigma_{xx} \approx \frac{h}{L} \sigma_{zz}$
4. $\sigma_{xx} \approx \sigma_{zz}$
5. $\sigma_{xx} \approx$
6. Some other answer
7. I don't know/don't understand.