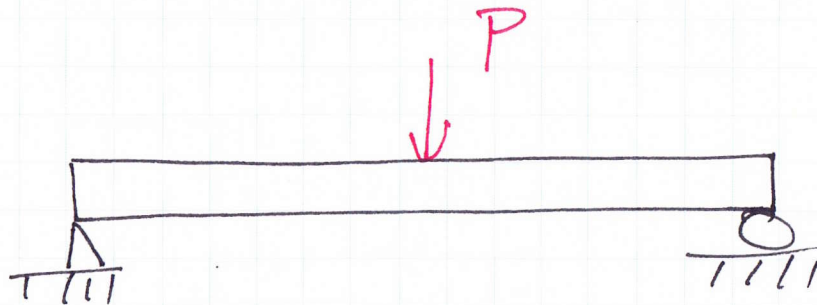


Allowable Load and Allowable Stress -- Factor of Safety



Factor of Safety

$$\Rightarrow F.S. = \frac{\text{Ultimate Load}}{\text{allowable Load}}$$
$$\text{Allowable Load} = \frac{\text{Ultimate Load}}{F.S.}$$

Stresses are linearly related to Loads

$$F.S. = \frac{\text{Ultimate Stress}}{\text{allowable stress}}$$