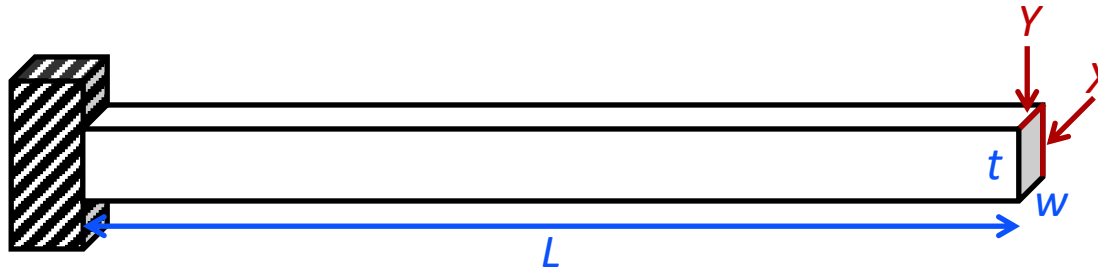


Cantilever Physics

Errata for SAND2015-6868 TR



Parameters:

L : length (in)

w : width (in)

t : thickness (in.)

ρ : density (lb/ft³)

E : Young's modulus (lb/in²)

X : horizontal load (lb)

Y : vertical load (lb)

Responses:

M : mass (lb)

S : stress (lb/in²)

D : displacement (in)

$$M = \rho * wt * \frac{L}{12^3}$$

$$S = \frac{6L}{wt^2} Y + \frac{6L}{w^2 t} X$$

$$D = \frac{4L^3}{Ewt} \sqrt{\left(\frac{Y}{t^2}\right)^2 + \left(\frac{X}{w^2}\right)^2}$$