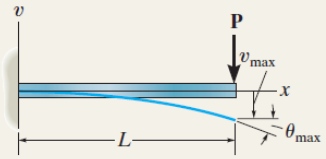
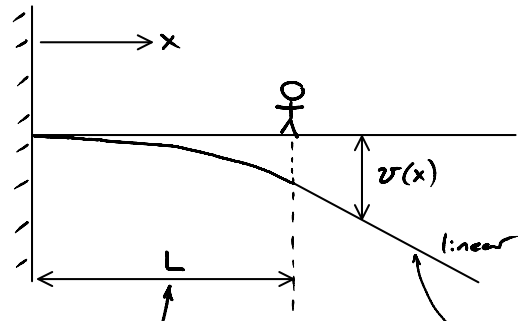
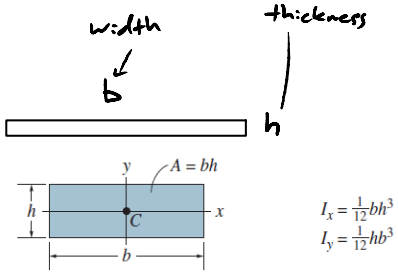
Beam	Slope	Deflection	Elastic Curve
	$\theta_{max} = \frac{-PL^2}{2EI}$	$v_{max} = \frac{-PL^3}{3EI}$	$v = \frac{-Px^2}{6EI}(3L - x)$

board





$0 \le x \le L \rightarrow v(x) = -\frac{Px^2}{6EI}(3L - x)$

$x > L \rightarrow v(x) = v_{max} - \frac{PL^2}{2EI}(x - L)$

$h = 0.05\ m$

$b = 0.5\ m$

$I = \frac{1}{12} b h^3$

$E = 3\ GPa = 3 \times 10^9\ Pa$ (plastic)

$P = mg = 70\ kg \cdot 9.81\ m/s^2 = 687\ N$

$L = 3\ m$