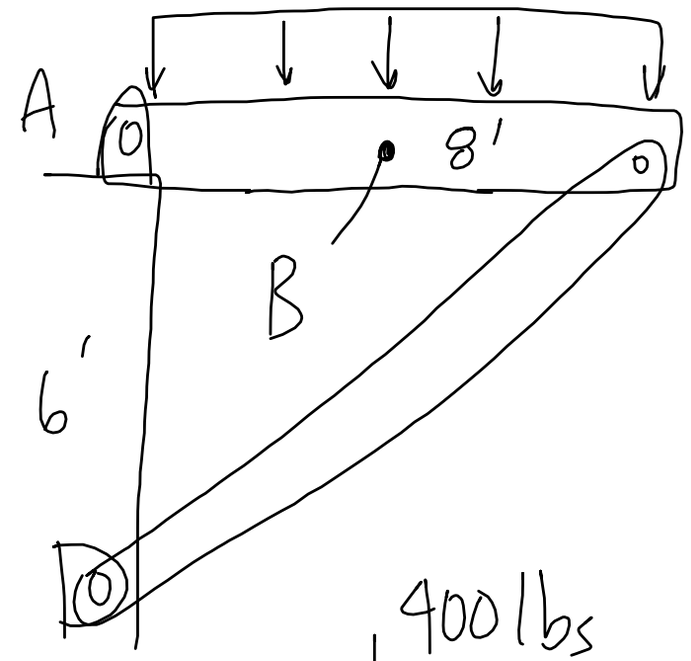
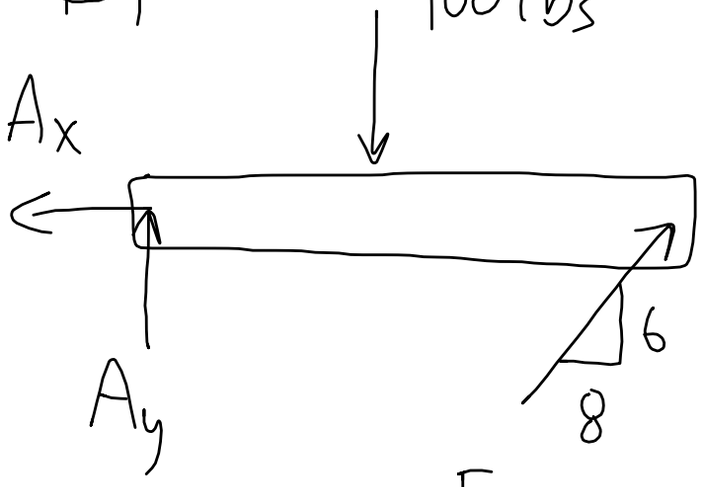


From last time...

What are V, N, M @ B?



$$+\circlearrowleft \Sigma M_A = F_c\left(\frac{6}{10}\right)8 - 400(4) = 0$$

$$F_c = 333.\overline{3}\ lbs$$

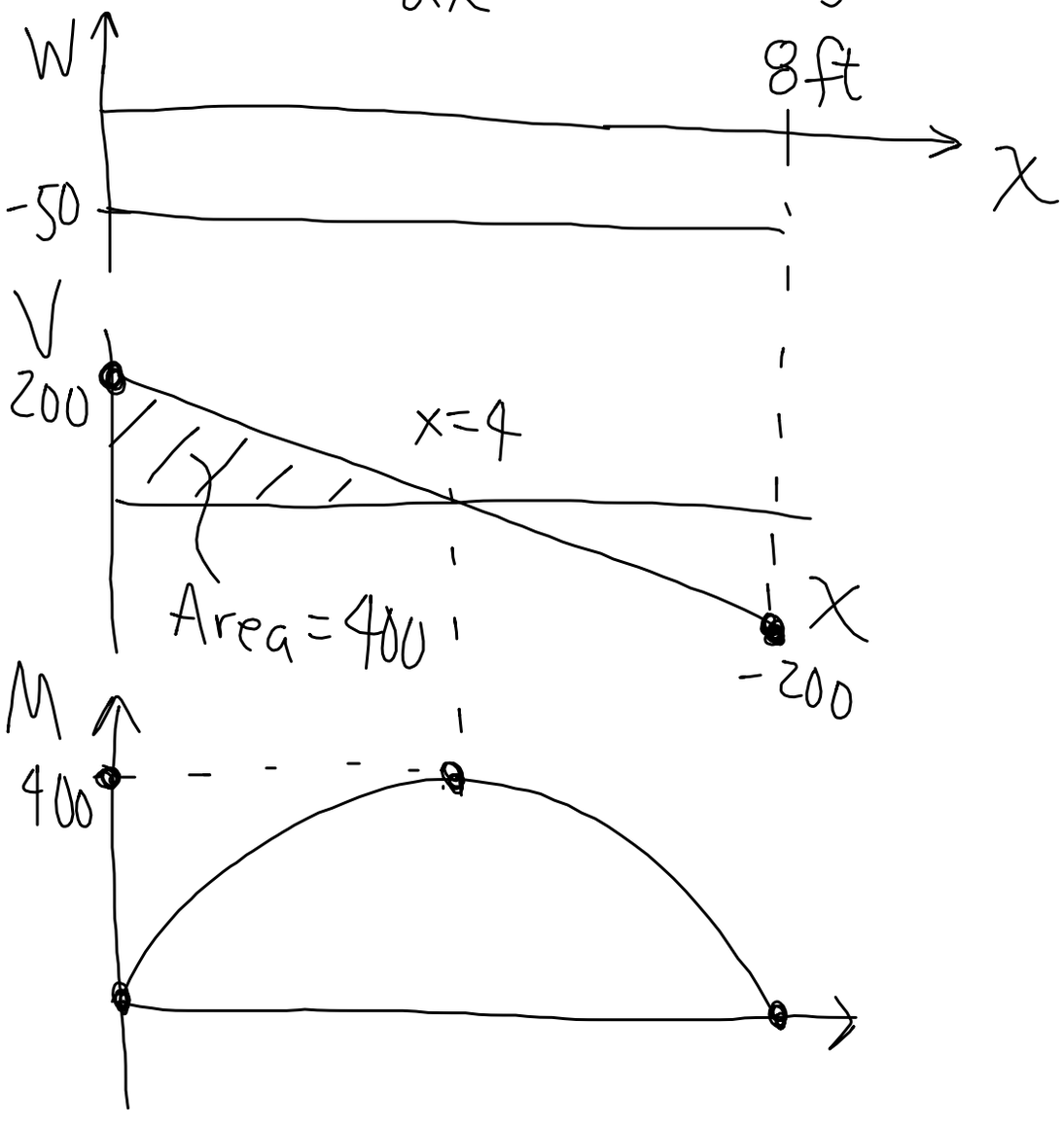
$$A_x = 333.\overline{3}\left(\frac{8}{10}\right) = 266.\overline{6}\ lbs$$

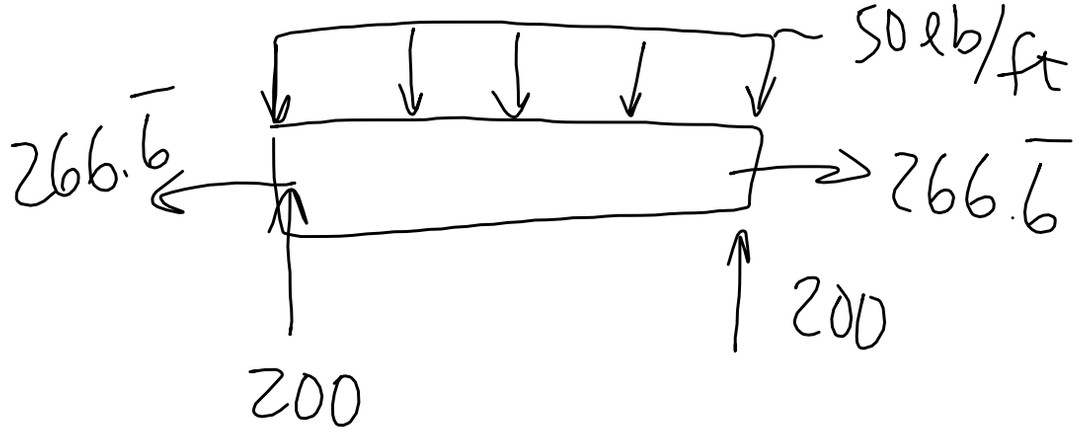
$$+\uparrow \Sigma F_y = A_y - 400 + 333.\overline{3}\left(\frac{6}{10}\right) = 0$$

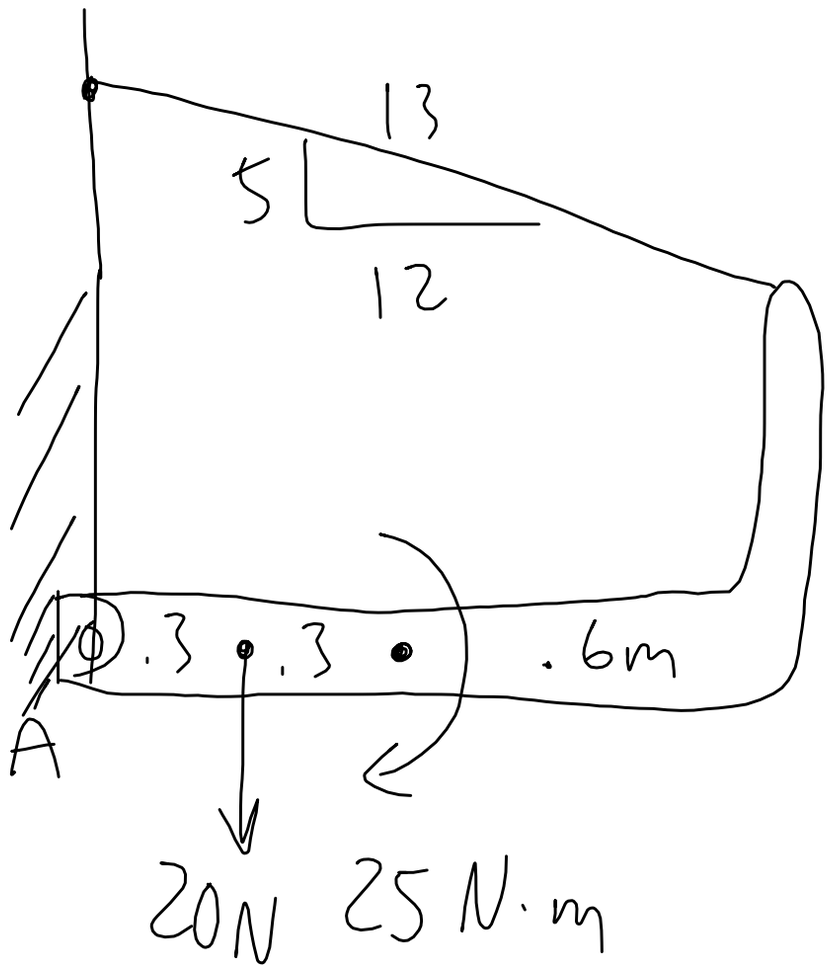
$$A_y = 200\ lbs$$

Recall $W = \frac{dV}{dx}$ or $\Delta V = \int W\,dx$

$V = \frac{dM}{dx}$ or $\Delta M = \int V\,dx$







Find ext. reactions

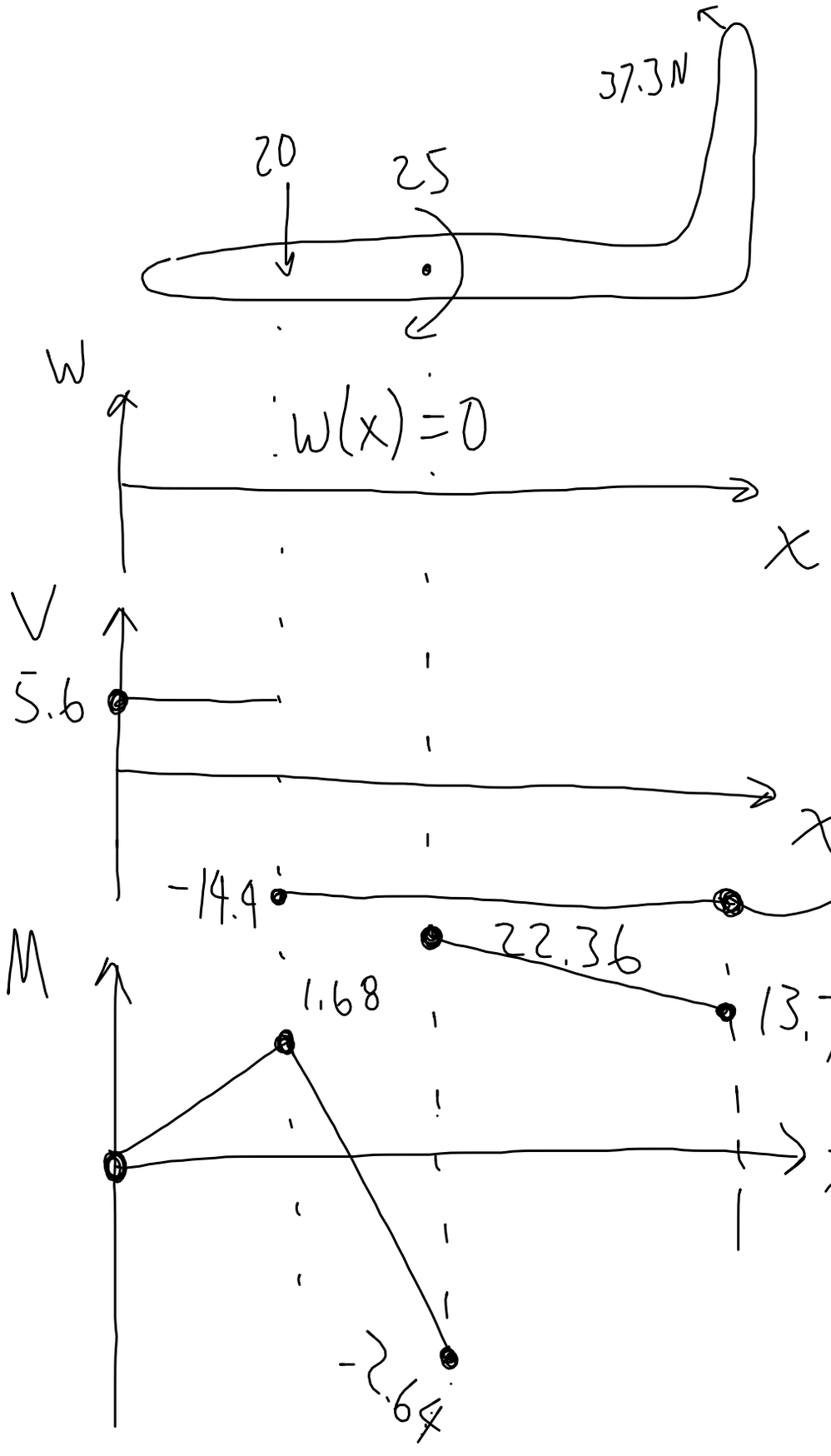
$$+\circlearrowleft \sum M_A = T\frac{5}{13}(1.2) + T\left(\frac{12}{13}\right)(.4)$$

$$-20(.3) - 25 = 0$$

$$T = 37.3\ N$$

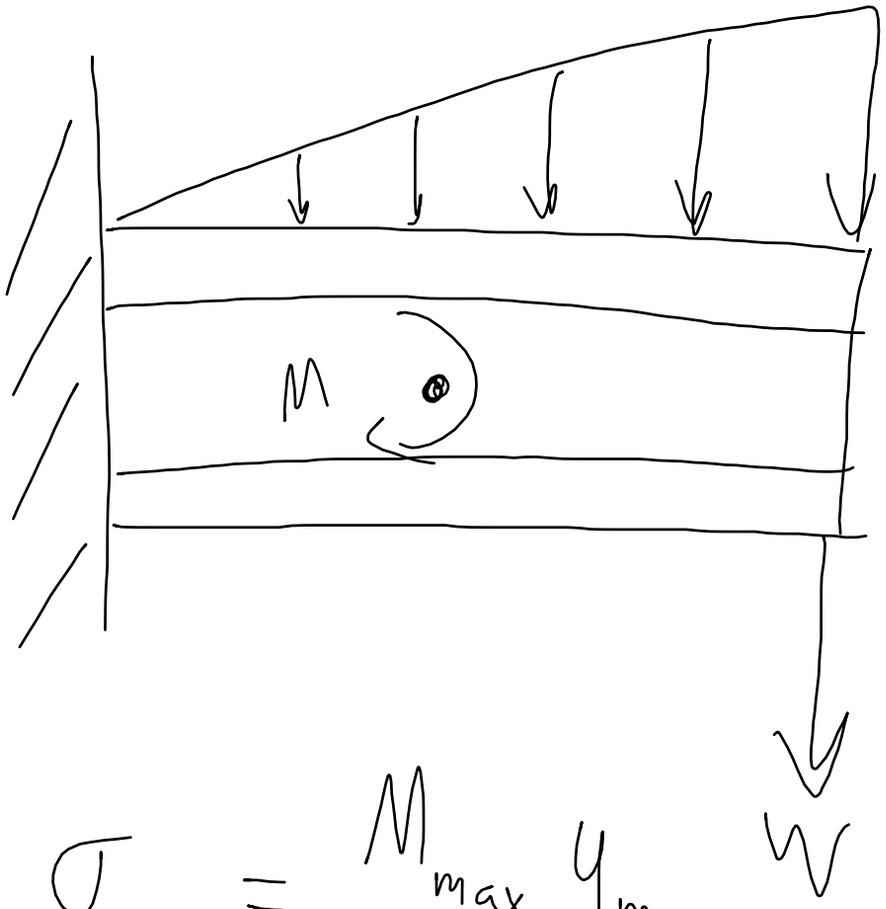
$$\overset{+}{\rightarrow} \sum F_x = A_x - 37.3\left(\frac{12}{13}\right) = 0 \quad A_x = 34.4\ N$$

$$+\uparrow \sum F_y = A_y - 20 + 37.3\left(\frac{5}{13}\right) = 0 \quad A_y = 5.6\ N$$

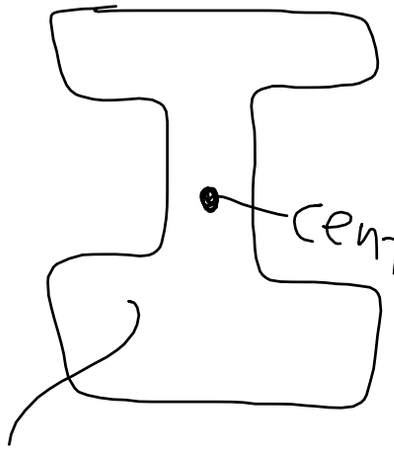


$$37.3\left(\frac{5}{13}\right) \doteq 14.4$$

$$= 37.3\left(\frac{12}{13}\right)(.4)$$



Find V_{max} & M_{max}



$$\sigma_{shear} = \frac{V_{max}}{A}$$

$$\sigma_{\substack{max \\ tensile \\ due\ to \\ bending}} = \frac{M_{max}\, y_{max}}{I_x}$$

$$I = \int y^2 dA$$

$$A$$

$$I = \int x^2 dA \text{ or } \int y^2 dA$$