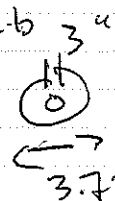
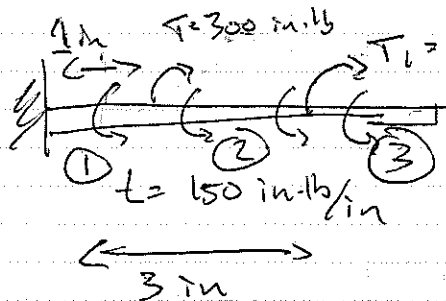


MAX TORSION  
MAX BENDING

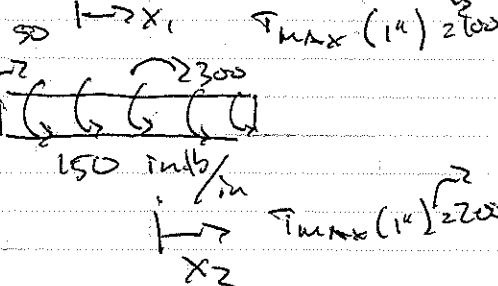
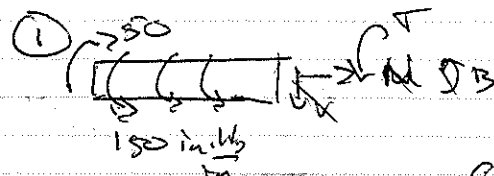
SORTA 2 L1C2 S.20



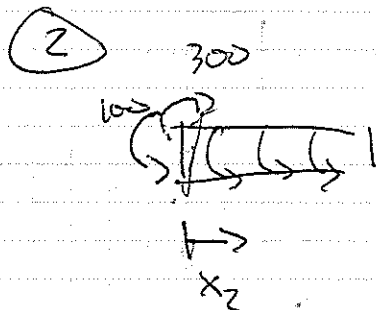
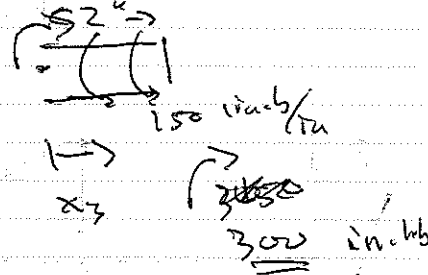
$$\tau = \frac{Tc}{J}$$

$$T_R = 150(5) - 300 - 400 = 50 \text{ in-lb}$$

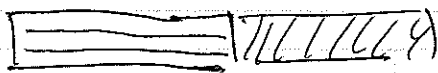
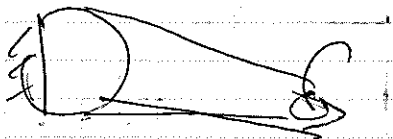
$$\tau_{\max} = \frac{300 \text{ in-lb} (3.75)}{2 \pi \frac{1}{4} (3.75)^2} = \frac{300}{2 \pi \frac{1}{4} (3.75)^2}$$

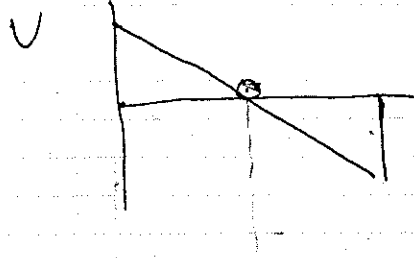
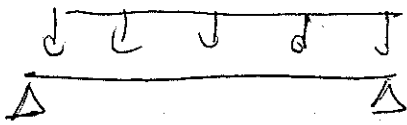


3

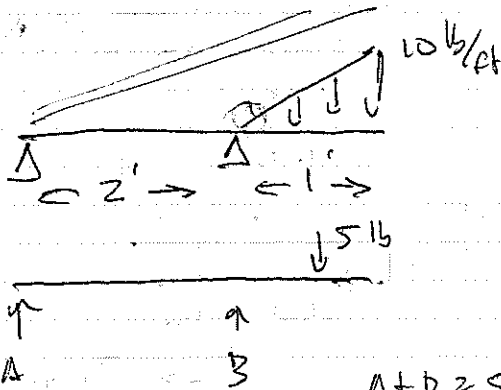
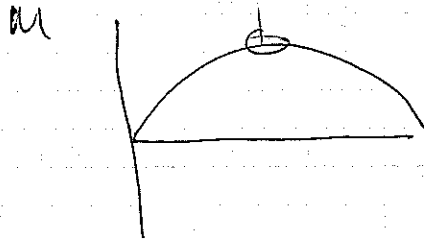


$$J = \int_A r^2 dA$$

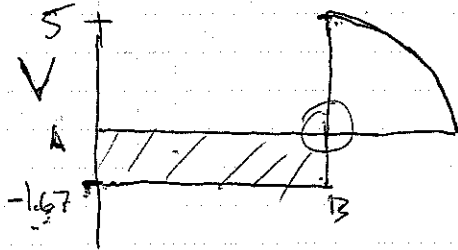




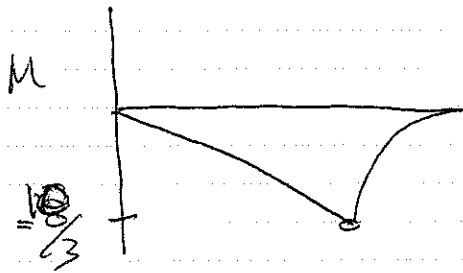
$$\frac{10}{3} = \frac{h}{x}$$



$$\begin{aligned} A + B &= 5 \\ \sum M_A = 0 &= 2B - 2.67(5) \\ B &= 6.667 \\ A &= -1.6667 \end{aligned}$$



$$V(x) = 0$$



$$\begin{aligned} \sum F_y = 0 \\ = -V + 5 - \frac{5}{3}x^2 \end{aligned}$$

$$V = 5 - \frac{5}{3}x^2$$

$$\begin{aligned} \sum M = 0 \\ = M + \frac{5}{3}x^2\left(\frac{1}{3}x\right) - 5x \end{aligned}$$

