

PROB. 9.31

$$(I_x)_3 = 2.11 \times 10^5 \text{ mm}^4$$

$$I_x = 3.89 \times 10^5 \text{ mm}^4$$

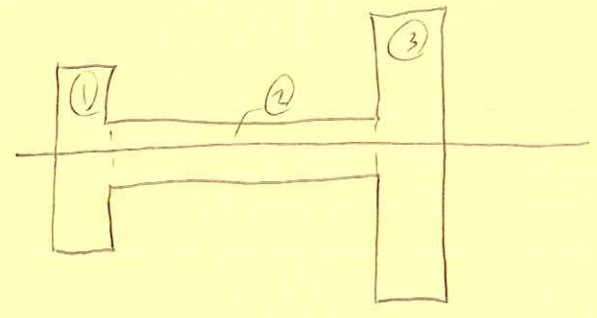
HOMEWORK #8

~~DO NOT WRITE~~

~~PROB.~~

PROBS. 9.50, 9.51, 9.54, 9.115, 9.127

IN-CLASS HOMEWORK: PROB. 9.33



$$(I_y) = (I_y)_1 + (I_y)_2 + (I_y)_3$$

$$(I_y)_1 = \frac{1}{12} b h^3 = \frac{1}{12} (6)(24)^3 = 6912 \text{ mm}^4$$

$$(I_y)_2 = \frac{1}{12} (48)(8)^3 = 2048 \text{ mm}^4$$

$$(I_y)_3 = \frac{1}{12} (6)(48)^3 = 5.53 \times 10^4 \text{ mm}^4$$

$$I_y = 6.42 \times 10^4 \text{ mm}^4$$