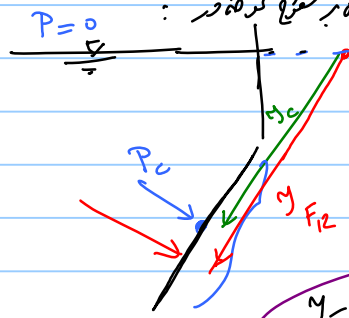


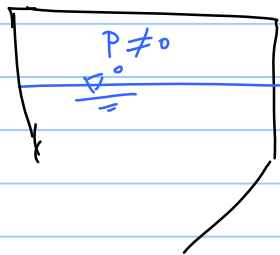
کلاس 1 - سینه P 99, 12, 12

توانسته ریشه پیدا کنید؟ در مورد سطح عمود بر P=0  
جز سطح عمود



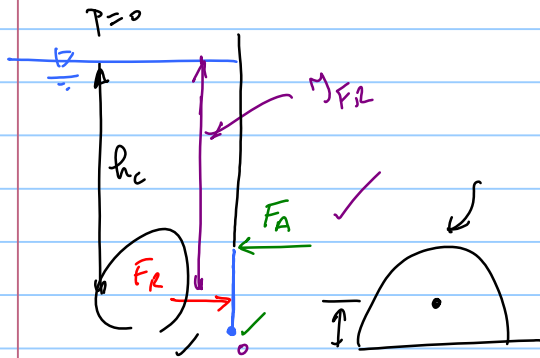
$$F = P_c A$$

$$y_{FR} = \frac{I_{xx'}}{y_c A} + y_c$$

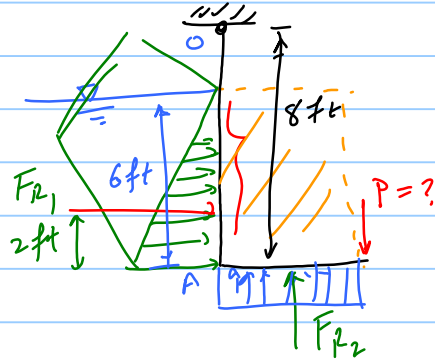


$$y_{FR} = \frac{I_{xx'}}{P_c A} + y_c$$

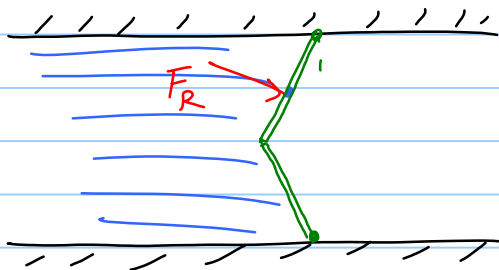
P ≠ 0

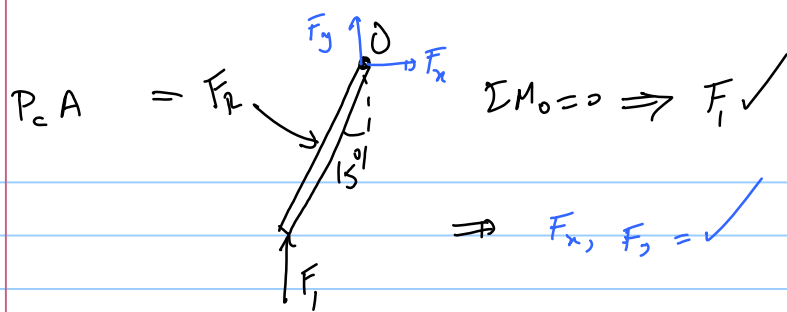


3.44)

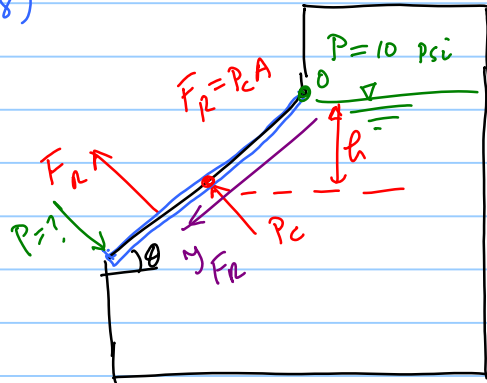


3.44)



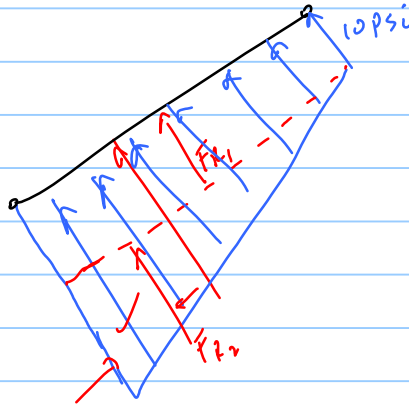
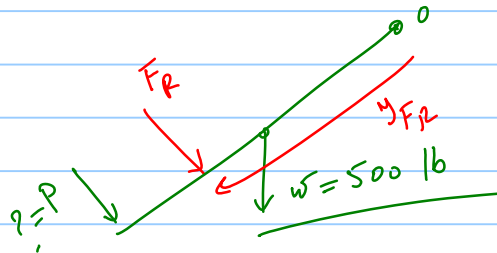


3.48)

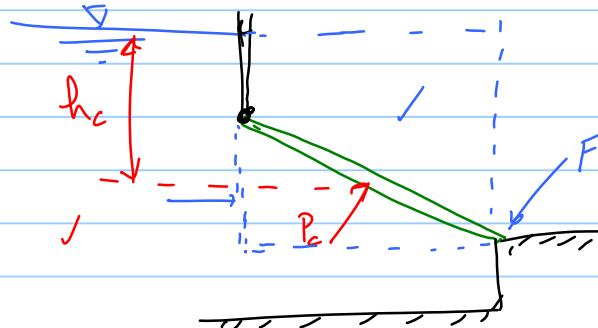


$P_c = P_o + \rho g h_c$

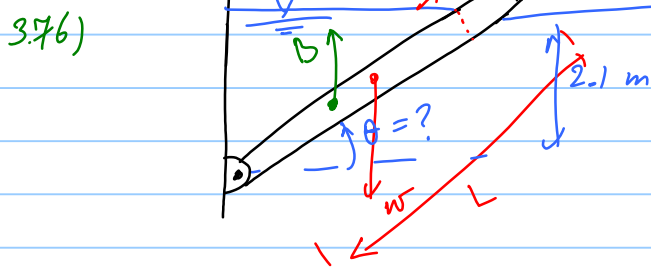
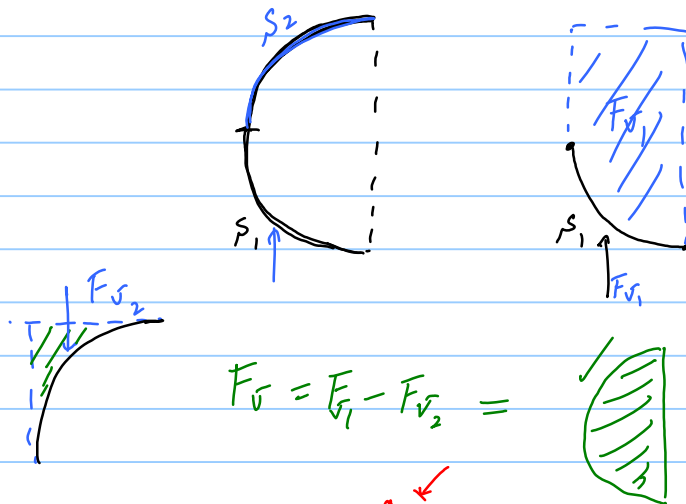
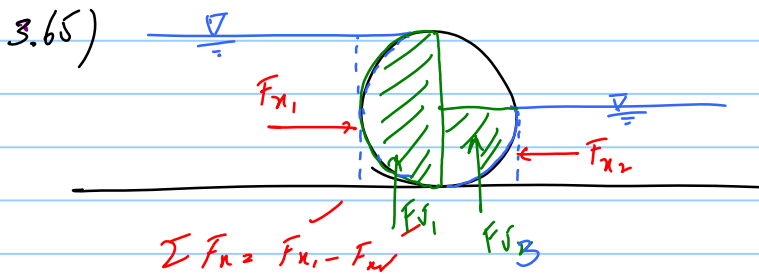
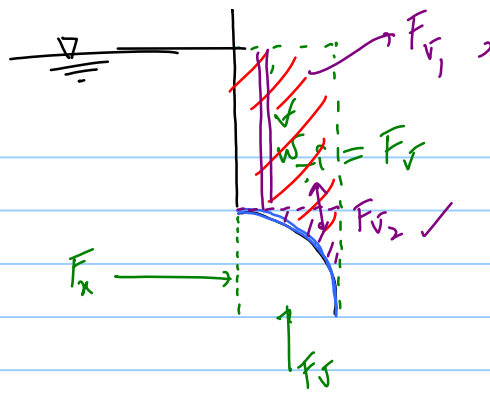
$M_{FR} = \frac{\rho g \int_0^L I_{xx} dx}{P_c A} + y_c \checkmark$



3.55)



3.61)



$$B \frac{(L-a)}{L} \cos \theta - W \frac{L}{2} \cos \theta = 0 \Rightarrow B(L-a) = WL$$

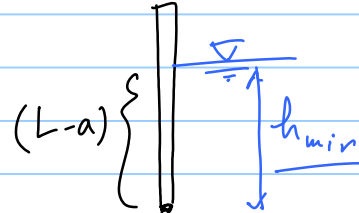
$$\Rightarrow B = \frac{LW}{L-a} \quad (*)$$

$$B = \int_{-1}^1 g V = \int_{-1}^1 g (L-a) A$$

$$\Rightarrow \int_{-1}^1 g (L-a) A = \frac{L}{L-a} W \Rightarrow a \checkmark$$

$$\Sigma \theta = \frac{2.1}{L-a} \quad \theta = \checkmark$$

$\Sigma \tau = 0$  :  $B = W$



$$W = B \Rightarrow W = \int_{-1}^1 g (L-a) A$$

$$h_{min} = (L-a) = \frac{W}{\int_{-1}^1 g A}$$

3.78)

$W_a =$  وزن تاج در هوا

$SG = ?$

$W_w =$  وزن تاج در آب

$$W_w = W_a - \int_{-1}^1 g v \Rightarrow \frac{W_w}{W_a} = 1 - \frac{\int_{-1}^1 g v}{W_a}$$

$$\frac{W_w}{W_a} = 1 - \frac{\int_{-1}^1 g v}{\int_{-1}^1 g v} = 1 - \frac{1}{SG}$$

$$\Rightarrow SG = \frac{W_a}{W_a - W_w}$$