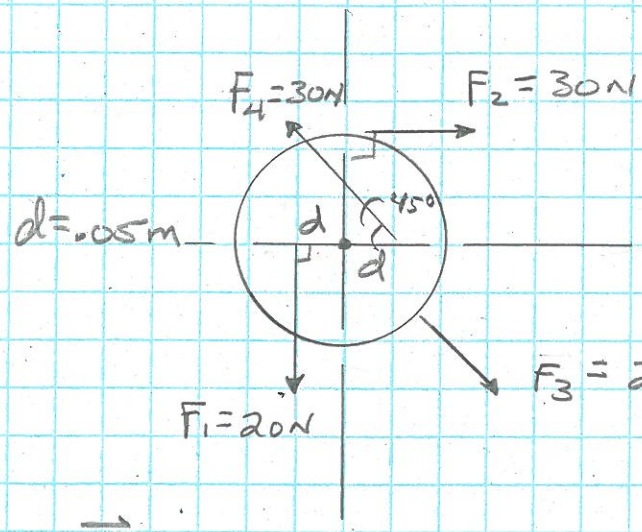
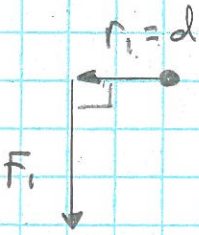


diameter = 20 cm
radius, r = .1m

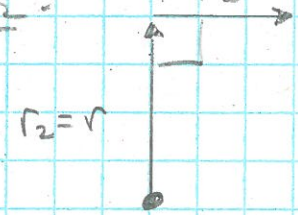
$$\vec{\tau}_{net} = \Sigma \vec{\tau}$$

For F_1:



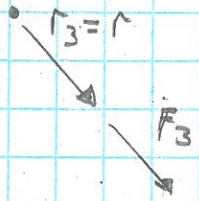
$\vec{\tau}_1 = r_1 F_1 = +1.0$ Nm (ccw)

For F_2:



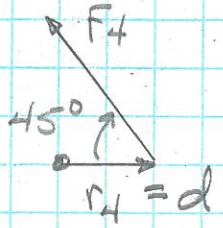
$\vec{\tau}_2 = r_2 F_2 = -r F_2 = -3.0$ Nm (cw)

For F_3:



$\vec{\tau}_3 = r_3 F_3 \sin 180° = 0$

For F_4:



$\vec{\tau}_4 = r_4 F_4 \sin 135° = 1.061$ Nm (ccw)

So $\vec{\tau}_{net} = +1.0 - 3.0 + 0 + 1.061 = -0.939$ Nm (cw)