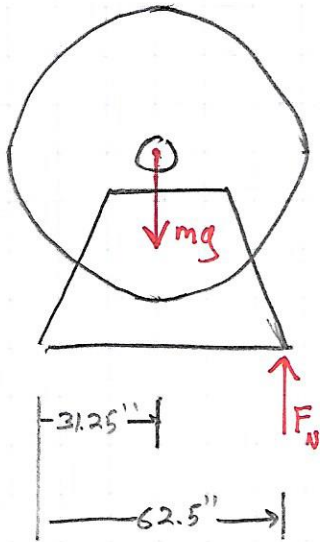
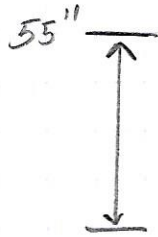


### Scenario 1

$$mg = 33,500 \text{ lbs}$$



$$F_N = mg = 33,500 \text{ lbs}$$

$$\Sigma M = F_N \cdot 62.5'' - mg \cdot 31.25''$$

$$\Sigma M = 33,500 \text{ lbs} (62.5'') - 33,500 \text{ lbs} (31.25'')$$

$$\Sigma M = 1,046,875 \text{ in-lbs}$$

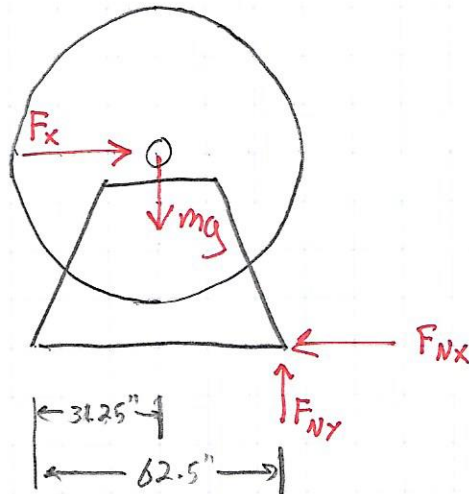
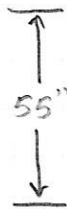
### Scenario 2

$$mg = 33,500 \text{ lbs}$$

$$F_{Ny} = mg = 33,500 \text{ lbs}$$

$$F_x = 13,400 \text{ lbs}$$

$$F_{Nx} = 13,400 \text{ lbs}$$



Moment created by  $F_x$

$$M_x = F_x \cdot 55'' = 13,400 \text{ lbs} (55 \text{ in}) = 737,000 \text{ in-lbs}$$