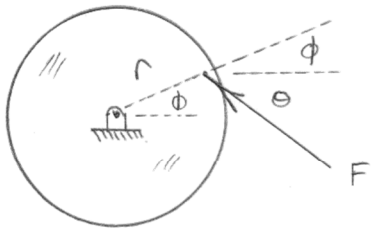
2/44 $r = 0.4\text{ m}$



$M_O = Fr\sin(\theta+\phi)$

$\begin{cases} + \text{ is CCW} \\ - \text{ is CW} \end{cases}$

a) $F = 500\text{ N}$, $\theta = 60^\circ$, $\phi = 20^\circ$:

$M_O = 500(0.4)\sin(60^\circ+20^\circ) = 197.0$

so... $M_O = 197.0\text{ N·m CCW}$

b) $F = 800\text{ N}$, $\theta = 45^\circ$, $\phi = 150^\circ$:

$M_O = 800(0.4)\sin(45^\circ+150^\circ) = -82.8$

so... $M_O = 82.8\text{ N·m CW}$