

$$\text{Diagram of disk with forces } F \text{ and } F \text{ and angular acceleration } \alpha = \frac{K D}{I \alpha}$$

$$\vec{r}_1 \times F\hat{e} + \vec{r}_2 \times -F\hat{e}$$

$$r\hat{j} \times F\hat{e} - r\hat{j} \times -F\hat{e} = rF(-\hat{k}) + rF(-\hat{k})$$

$$\Sigma \tau = \underline{-2Fr} = \underline{I\alpha}$$

$$\iiint \vec{r} \times m \vec{v} dV$$

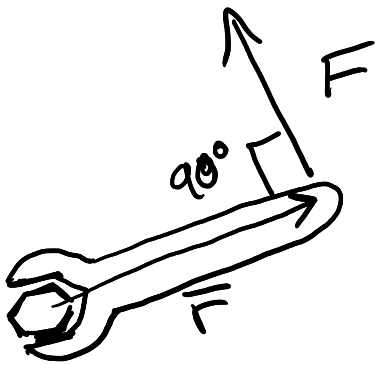
$$\Sigma \vec{r} \times \vec{F} = \tau = \vec{r} \times m \vec{a}$$

$$\Sigma \tau = I \alpha$$

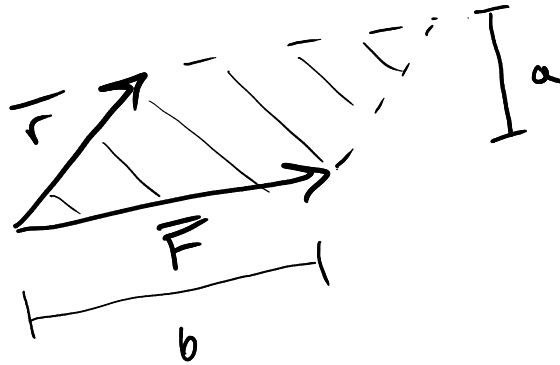
$$-2Fr = \underbrace{0.5 \text{ kg} \cdot \text{m}^2}_I \cdot \underbrace{\left(-50 \frac{\text{rad}}{\text{s}^2}\right)}_\alpha$$

$$F = \frac{I \alpha}{2r}$$

Quick Moment moment

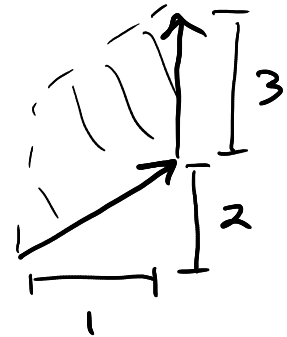


$$\vec{r} \times \vec{F}$$



$$\vec{r} = 1\hat{i} + 2\hat{j}$$

$$\vec{F} = 3\hat{j}$$



$$(1\hat{i} + 2\hat{j}) \times (3\hat{j})$$

$$= 3 \cdot 1 \hat{k} + 0 = 3 \text{ N}\cdot\text{m}$$

