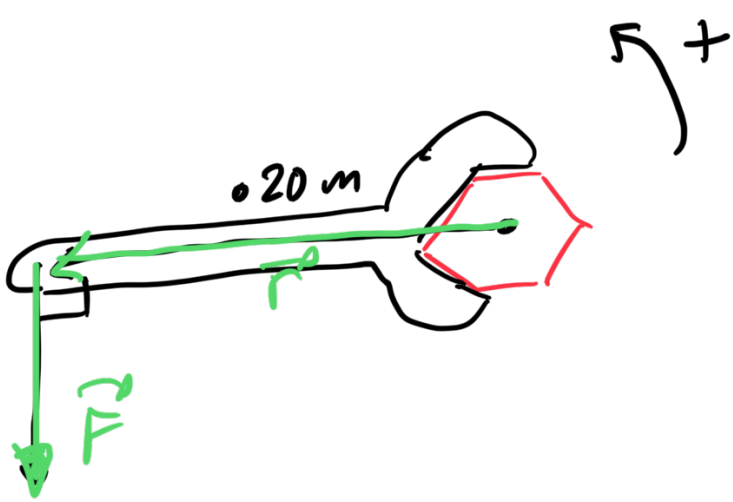
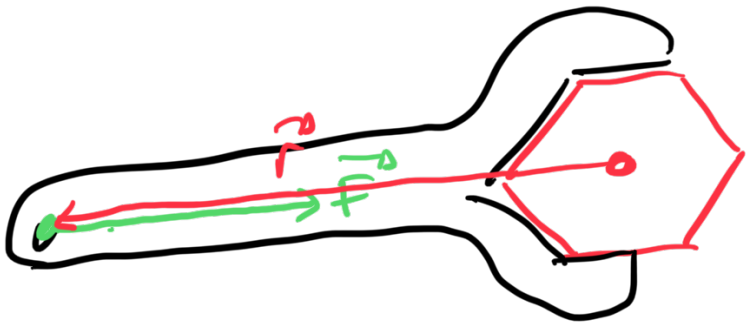


$F = 100N$

$$\tau = |\vec{F}||\vec{r}|\sin\theta$$

$$= (100)(.2)\sin(90°)$$

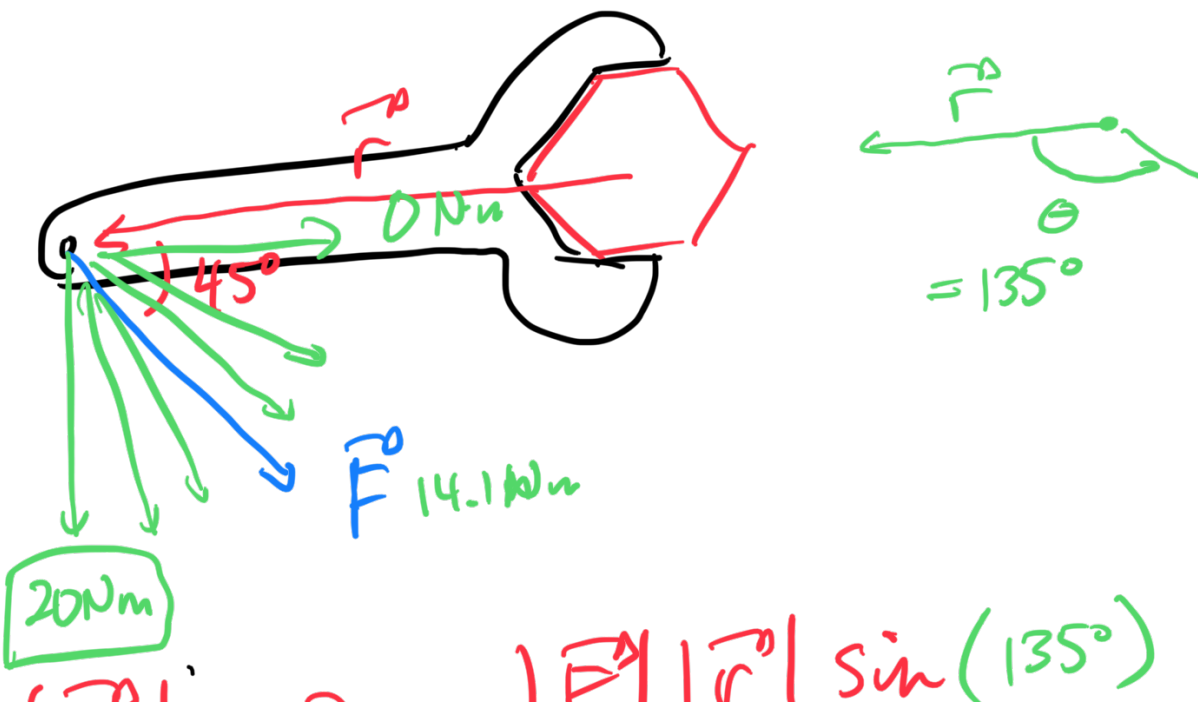
$$\boxed{\tau = 20 \ N \cdot m}$$



$$|\vec{\tau}| = \tau = |\vec{F}||\vec{r}|\sin\theta$$

$\theta = 180°$

$$= 0 \leftarrow \quad \sin(180°) = 0!$$



$$|\vec{\tau}| = \tau = |\vec{F}||\vec{r}|\sin(135°)$$

$$= (100)(.2)\sin(135°)$$

$$\tau = 14.1 \text{ N}\cdot\text{m}$$

Most Effective → applying force
⊥ to $\vec{r}$.