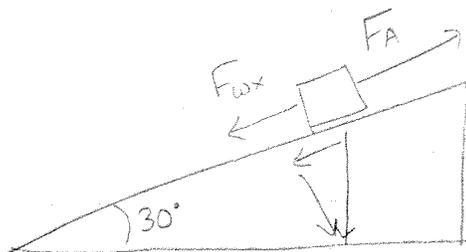


$$m = 70 \text{ kg}$$

$$\theta = 30^\circ$$

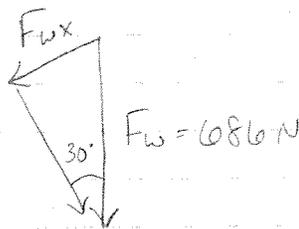
$$d = 60 \text{ m}$$

$$v = 2.0 \text{ m/s}$$



Find F_A using right triangles:

$$\begin{aligned} F_w &= m \cdot g \\ &= (70 \text{ kg}) \cdot (9.8 \text{ m/s}^2) \\ &= 686 \text{ N} \end{aligned}$$



$$\begin{aligned} F_{wx} &= (686 \text{ N}) \cdot \sin 30^\circ \\ &= 343 \text{ N} \end{aligned}$$

F_A cancels weight (F_{wx}) so $F_A = 343 \text{ N}$

$$\begin{aligned} \text{a) } W &= F \cdot d \\ &= (343 \text{ N}) \cdot (60 \text{ m}) \end{aligned}$$

$$W = 20,580 \text{ J}$$

$$\begin{aligned} \text{b) } P &= F \cdot v \\ &= (343 \text{ N}) \cdot (2.0 \text{ m/s}) \end{aligned}$$

$$P = 686 \text{ W}$$