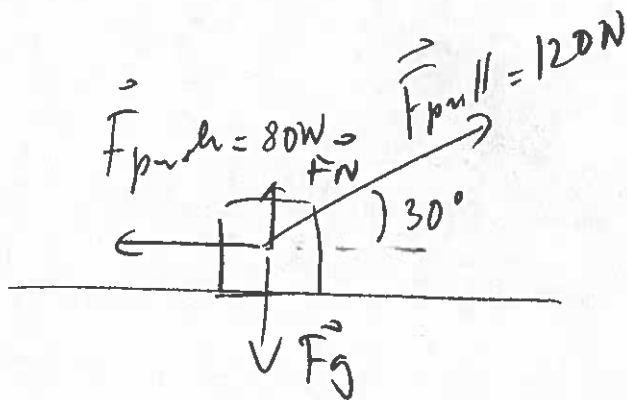


N2L

#1 Alternatively



$$\vec{F}_{\text{push}} = [-80, 0] \text{ N}$$

$$\vec{F}_g = [0, -78.4] \text{ N}$$

$$\vec{F}_{\text{pull}} = [103.92, 60] \text{ N}$$

$$\begin{aligned} \vec{F}_N &= [0, 78.4 - 60] \\ &= [0, 18.4] \text{ N} \end{aligned}$$

$$\vec{F}_{\text{net}} = \vec{F}_g + \vec{F}_N + \vec{F}_{\text{push}} + \vec{F}_{\text{pull}}$$

$$= [0, -78.4] + [0, 18.4] + [-80, 0] + [103.92, 60]$$

$$= [23.92, 0] \text{ N}$$

$$\vec{a} = \frac{23.92}{8} = 2.99 = 3.0 \text{ m/s}^2 \text{ [R]}$$