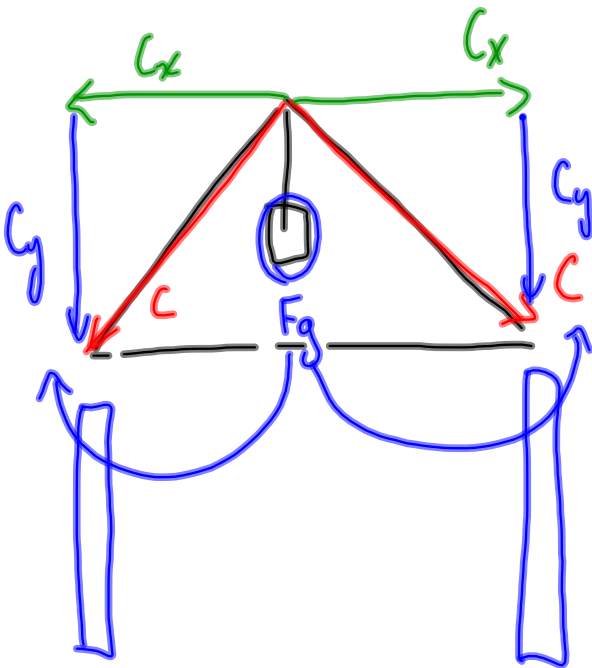


$\frac{FOP}{5.}$



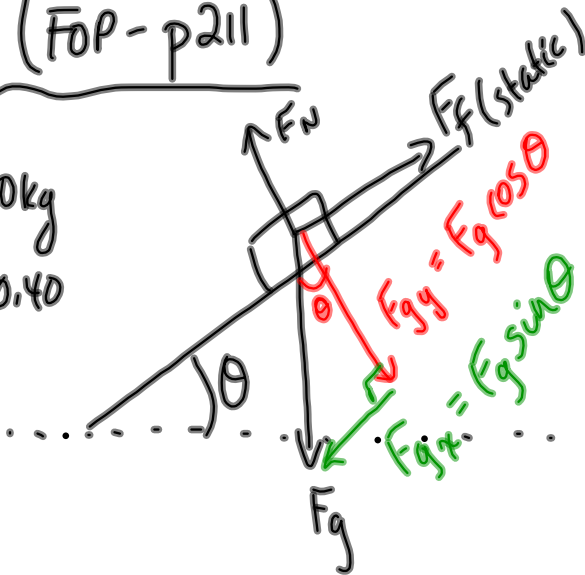
Static Friction

$$\bar{F}_{f(\text{static})} \leq \mu_s F_N$$

ΣP2 (FOP - p211)

$$m = 1.0 \text{ kg}$$

$$\mu_s = 0.40$$



$$\vec{F}_{\text{net}} = 0$$

$$F_{gx} - F_f = 0$$

$$F_{gx} = \bar{F}_f$$

$$F_g \sin \theta = \mu F_N$$

$$\bar{F}_g \sin \theta = \mu \bar{F}_g \cos \theta$$

$$\mu = \frac{F_g \sin \theta}{F_g \cos \theta}$$

$$\mu = \frac{\sin \theta}{\cos \theta}$$

$$\mu = \tan \theta$$

$$\theta = \tan^{-1}(0.40)$$

$$\boxed{\theta = 22^\circ}$$

SP3 (FOP - p 211)

