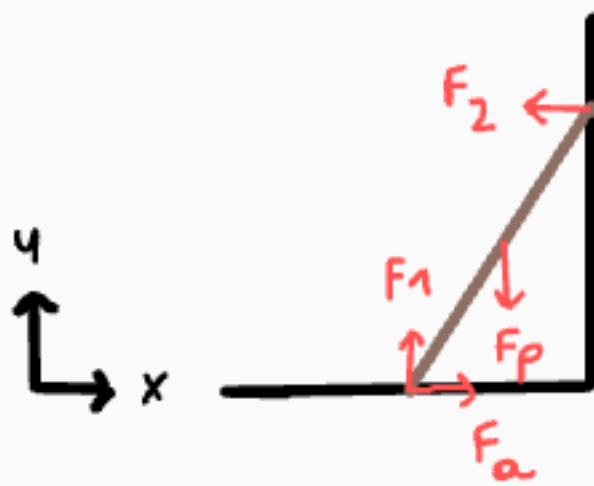




$$F_a = \mu \cdot F_1 \quad F_p = m \cdot g$$

$$\left. \begin{aligned} F_{tot}^x &= \mu \cdot F_1 - F_2 = 0 \quad \Rightarrow \quad F_2 = \mu F_1 \\ F_{tot}^y &= F_1 - mg = 0 \quad \Rightarrow \quad F_1 = mg \end{aligned} \right\} F_2 = \mu mg$$

$$\eta_{tot} = 0 \cdot F_1^\perp + 0 \cdot F_a^\perp - \frac{1}{2} l mg \cos\theta + l F_2 \sin\theta = 0$$

$$l F_2 \sin\theta = \frac{1}{2} l mg \cos\theta$$

$$l \mu mg \sin\theta = \frac{1}{2} l mg \cos\theta$$

$$\mu \sin\theta = \frac{1}{2} \cos\theta$$

$$\frac{\sin\theta}{\cos\theta} = \frac{1}{2\mu}$$

$$\tan\theta = \frac{1}{2\mu}$$

$$\theta = \arctan\left(\frac{1}{2\mu}\right)$$