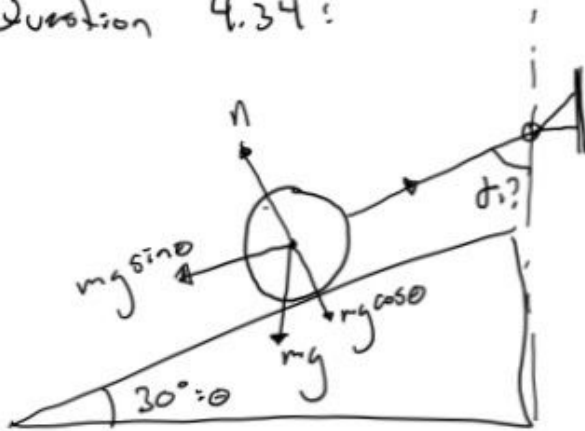


# HW 2.1

Monday, January 27, 2020

7:01 PM

Question 4.34:



$$10 \text{ N} \cdot \sin(30) = 5 \text{ N}$$

$$\frac{5 \text{ N}}{5 \text{ N}} = \frac{5 \text{ N} \cdot \sin(\alpha)}{5 \text{ N}}$$

$$\sin^{-1}(1) = \sin^{-1}(\sin(\alpha))$$

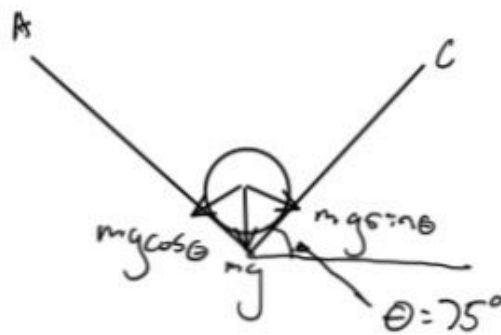
$$90^\circ = \alpha$$

$$10 \text{ N} \cdot \cos(30)$$

$$8.66 \text{ N}$$

force exerted on the ramp

Question 4.35



Given:  $\theta = 75^\circ$

$$F_g = mg = 10 \text{ N}$$

$$F_A = 10 \text{ N} \cdot \cos(75) = 9.7 \text{ N}$$

$$F_C = 10 \text{ N} \cdot \sin(75) = 2.6 \text{ N}$$