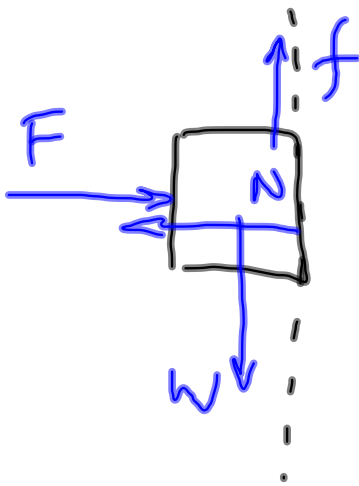


Questions on MP?

HW Quiz @ 12:40

RANKING

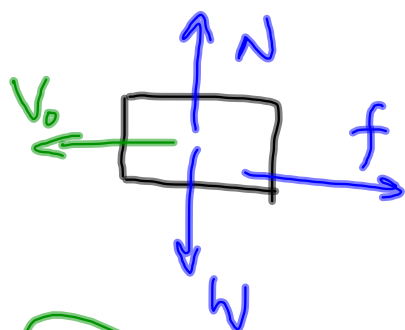


(6.1)

$$\mu = 0.46$$

$$v_0 = 5 \text{ m/s}$$

$$x = ?$$



$$\sum F_x = f = ma$$

$$f_k = \mu_k N$$

$$\mu_k N = ma$$

$$\mu_k \cancel{m} g = \cancel{m} a$$

$$a = \mu_k g$$

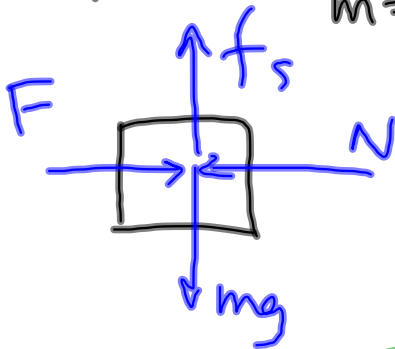
NOW USE
EQUA #3 TO
FIND X

$$v^2 = v_0^2 + 2ax$$

$$x = \frac{-v_0^2}{2a}$$

(6.23)

GIVEN $\mu = 0.42$
 $k = 100 \text{ N/m}$
 $m = 0.2 \text{ kg}$

FIND x 

$$\sum F_x = F - N = 0$$

$$kx - N = 0$$

$$x = \frac{N}{k}$$

$$\sum F_y = f_s - mg = 0$$

$$\mu_s N - mg = 0$$

$$N = \frac{mg}{\mu_s}$$

$$x = \frac{\frac{mg}{\mu_s}}{k}$$

$$x = \frac{mg}{\mu_s k}$$

$$N \div k = N \cdot \frac{1}{k}$$

$$f_s \leq \mu_s N$$

$$f_{smax} = \mu_s N$$

$$f_k = \mu_k N$$
