

😊 HAPPY MONDAY! 😊

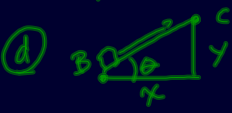
-last call for the AP Problem (sliding block)
-use first half hour of class to work on Horsepower Lab Report (due Wednesday)


-I'll grade your AP Problems while you're working on the HP report, and then we'll go over them in the 2nd half of class

TEST on Wednesday (Chapters 6 & 7)

-this test will be more difficult than normal, but will be take-home this time (due @ 1:05 pm Thursday, no exceptions)

AP PROBLEM (SLIDING BLOCK)

a) 



$$W = \Delta K$$
$$W_f + W_g = \Delta K$$
$$F_f(\sqrt{x^2+y^2}) + mgy = \frac{1}{2}mv_f^2$$

~~$$\frac{mgy}{\sqrt{x^2+y^2}}(\sqrt{x^2+y^2}) + mgy = \frac{1}{2}mv_f^2 \rightarrow 2gh \text{ FROM (b)}$$~~

$$\mu = \frac{H-y}{x}$$

$$F_f = \mu N$$
$$N = N \cos \theta$$
$$= mg \cos \theta$$
$$= \frac{mgx}{\sqrt{x^2+y^2}}$$
$$F_f = \mu N$$

Apr 20-8:53 AM

Nov 16-1:41 PM

a) $W = \Delta K$

$$W_f + W_g = \frac{1}{2}m(v_f^2 - v_i^2)$$
$$W_f + mgH = \frac{1}{2}mv_f^2$$
$$W_f = \frac{1}{2}mv_f^2 - mgH$$
$$= \frac{1}{2}m\left(\frac{\sqrt{2gh}}{2}\right)^2 - mgH$$
$$= \frac{1}{2}m\frac{gh}{2} - mgH$$
$$= \frac{1}{4}mgH - mgH = \frac{-3}{4}mgH$$

Nov 16-1:51 PM