

get your clicker

Review for test tomorrow

- Chapters 6 & 7
- not take home, but you'll have up to an hour after school to finish (must be finished on Wednesday)
- 20 M.C. and 2 F.R. (F.R. will be like "two-dot" problems from textbook)
- open notes, textbook, and MP

Nov 30-11:40 AM

CHAP 6

FRICITION

$$f_s \leq \mu_s N$$

$$f_k = \mu_k N$$

STRINGS

-ONLY CHANGE DIRECTION
OF FORCE

SPRINGS

$$F_s = kx$$

↳ SPRING CONSTANT
N/m

STILL DRAW FBDs, AND $\Sigma F = ma$

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CHAP 7

WORK

$$W = Fd \cos \theta$$

WORK-ENERGY THEOREM

$$W = \Delta K$$

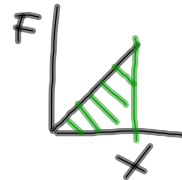
$$K = \frac{1}{2}mv^2 \quad \text{KINETIC ENERGY}$$

POWER

$$P = \frac{W}{t} = Fv \cos \theta$$

WORK ON A SPRING

$$W_s = \frac{1}{2}kx^2$$



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GIVEN

$$v_0 = 10 \text{ m/s}$$

$$v = 0$$

$$x = 100 \text{ m}$$

FIND

$$\mu = ?$$

$$f_k = \mu_k N$$

$$\mu_k = \frac{f_k}{N}$$

$$= \frac{ma}{mg}$$

$$= \frac{0.5 \text{ m/s}^2}{9.81 \text{ m/s}^2} = 0.05$$

$$N = mg$$

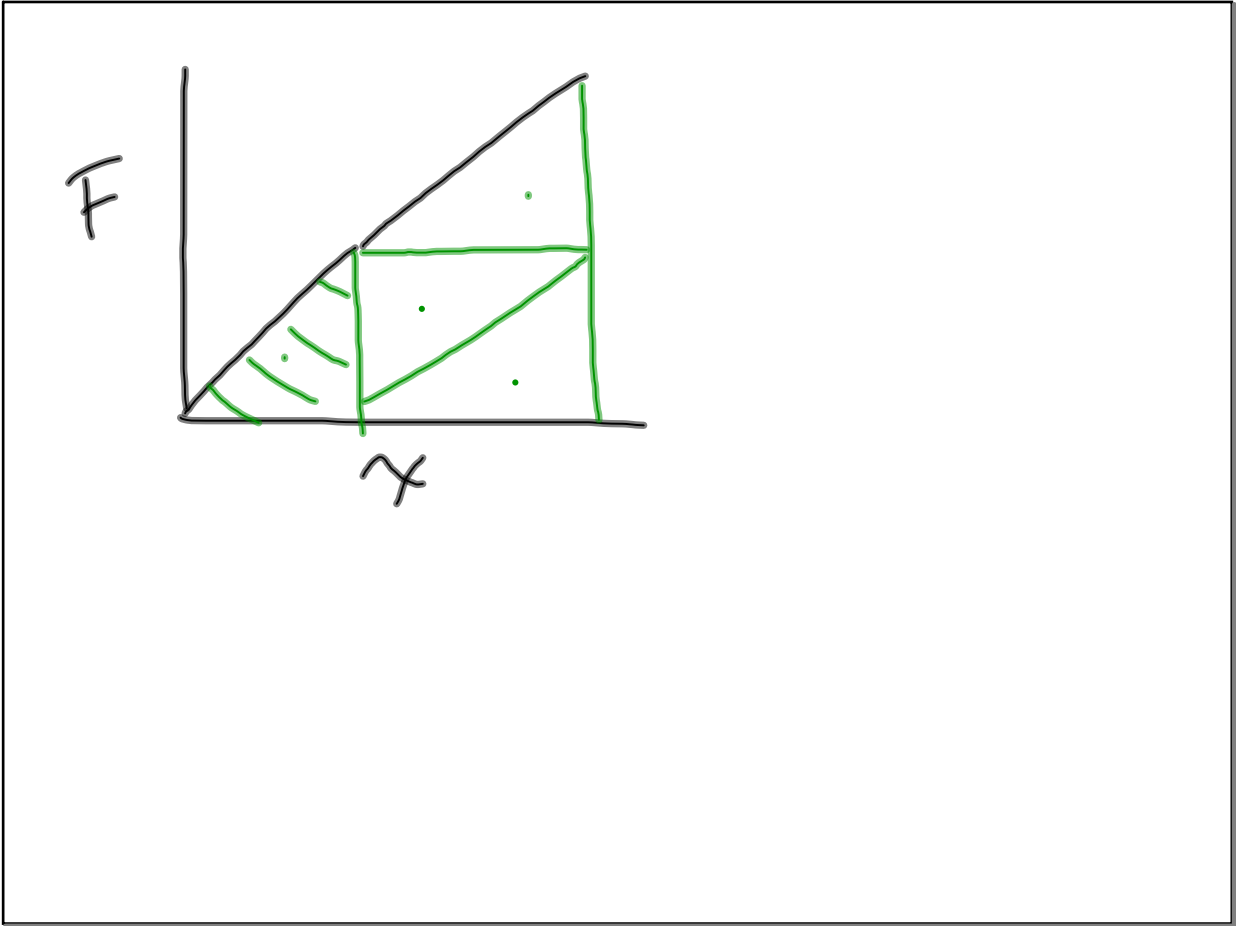
$$\sum F = ma$$

$$f_k = ma$$

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

$$a = \frac{10^2}{2 \cdot 100} = 0.5 \text{ m/s}^2$$

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