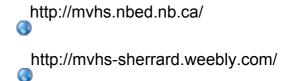
# Science 10 Wednesday May 10/17



- 1. Assignment: Average Speed, Constant Velocity and Average Velocity Date Fillm, Mm12117
- 2. Roller Coasters

### Physics 112

Wednesday, May 10/17

http://mvhs.nbed.nb.ca/

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- 1. FA Work
- 2. SA U3S1 Work, No Work, Etc.

   May 12/17 Fill in the blanks.

  Published (5)
- 3. Check: Worksheet Kinetic Energy and Kinetic-Energy Theorem
- 4. Reference/Zero Lines
- 5. Gravitational Potential Energy To Be Continued
- 6. Work-Gravitational Potential Energy Theorem
- 7. Worksheet GPE and Work-GPE Theorem

#### Formative Assessment - Work

- 1. How much work is done by you on a 15 N sack of potatoes while holding it for 3.0 minutes while standing in line at the grocery store? (0 J)
- 2. a) How much work was done by the force of gravity on an 18 kg object as it was lifted to a height of 2.3 m at a constant velocity? (4.1 x 10<sup>2</sup> J)
  - b) What type of work was done by the force of gravity?
    Explain. (negative work force of gravity and motion have opposite directions)
- 3. Sheila did 110 J of work to move a chair 2.40 m to the right. How much force did Sheila use to move the chair? (45.8 N)

## Physics 122 Wednesday, May 10/17

http://mvhs.nbed.nb.ca/

- http://mvhs-sherrard.weebly.com/
- 1. SA Circular Motion and Heavenly Bodies
- 2. Questions?

Worksheet - Mass on a Spring

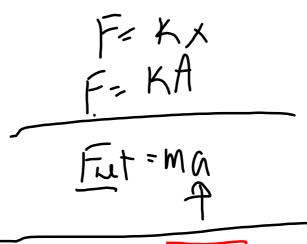
Worksheet - Pendulums

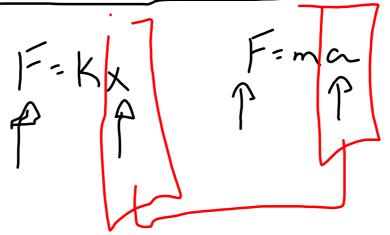
Worksheet: SHM - Mixed Problems

- 3. Danielle's Question
- 4. FA SHM
- 5. Worksheet -> Text: Page 536, PP #1-8

SHM-Problems (Mixe ).

8. 
$$M = 0.025ky$$
 $A = 0.030cm = 0.00030m$ 
 $A = 0.030cm$ 
 $A = 0$ 





#### FA - SHM

- 1. A mass of 1.53 kg is attached to a spring and the system is undergoing simple harmonic oscillations with a frequency of 1.95 Hz and an amplitude of 7.50 cm.
  - a) What is the speed of the mass when it is 3.00 cm from its equilibrium position? (0.842 m/s)
  - b) What is the total energy of the system? (0.646 J)
- 2. An 8.8 N object vibrates at the end of a horizontal spring along a frictionless surface. If the period of vibration is 1.1 s, what is the spring constant? (29 N/m)
- 3. A spring oscillates with a 0.5 kg mass at the same frequency as a 2.4 m long pendulum on Earth. What is the spring constant of the spring? (2 N/m)