

Name: \_\_\_\_\_

Band: \_\_\_\_\_

Algebra II | Packer Collegiate Institute | 2008-2009

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Pendulum Activity Debrief

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WARM UP:

(1) What are some sources of error in our lab?

(2) If you have a pendulum hanging from the ceiling of this room to the ground, do you think the period would be super long or short? Why?

Your quadratic regression for LENGTH (L1) versus PERIOD (L2): \_\_\_\_\_  
Is this a good model? Why or why not?

Your quadratic regression for PERIOD (L2) versus LENGTH (L1): \_\_\_\_\_  
Is this a good model? Why or why not?

USING THE "GOOD MODEL":

If your pendulum has a period of 1.5 seconds, estimate the length of the pendulum.

What about a period of 20 seconds?

If your pendulum has a length of 10 inches, what do you estimate the period to be?

If your pendulum has a length of 1,200 inches, what do you estimate the period to be?

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THEORETICAL PERIOD:  $T = 2\pi\sqrt{\frac{L}{g}}$  (where T, L and g are in standard metric units)

(Remember:  $g=9.8 \text{ m/s}^2$  and 1 in = 2.54 cm = 0.0254 m)