

Name: _____

Period: _____

HW Unit 10:3—Harmonic Motion 2

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A-day: Due Wed., 3/25 (Assig: 4/23)
B-day: Due Thurs., 3/27 (Assig: 4/25)

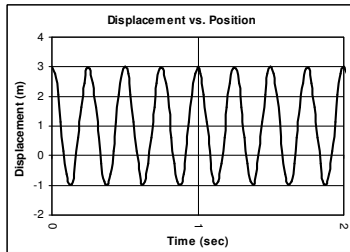
1. A wave is 5 m long and vibrates at 10 Hz.
Find its speed.

Variables Equation Solve

2. A pendulum oscillates (moves back and forth) 2 times in 4 seconds.
 - A) What is its period?
 - B) Find its frequency (show work).

3. What is an equilibrium position?

7. What is frequency?



8. How many cycles are in the first second?

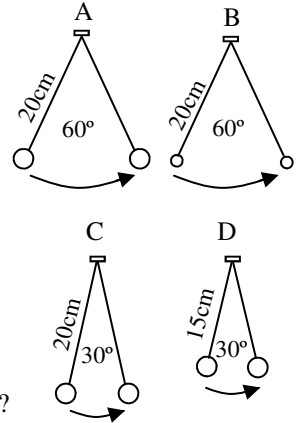
9. So what is the frequency of the graph's motion?

10. What is the amplitude of the above graph?

11. On the graph at the right. 1 cycle after F is ____;
1/2 cycle after M is ____; 2 cycles after A is ____;
1 cycles before O is ____; 1/4 cycle after G is ____.
Total number of cycles is:

4. Use the four pendulums to answer the following:

- A. What is A's amplitude?
- B. Which has a shorter period: A or B?
- C. Which has a shorter period: A or C?
- D. Which has more amplitude: B or D?
- E. Which has more energy: B or C?
- F. Which has a shorter period: C or D?
- G. What is D's amplitude?



5. What affects the period of a pendulum: amplitude, mass, or length?
6. How do you get a quicker period for a pendulum?

12. Find the graph's period.

HW Unit 10:3

13. Find the graph's amplitude.

