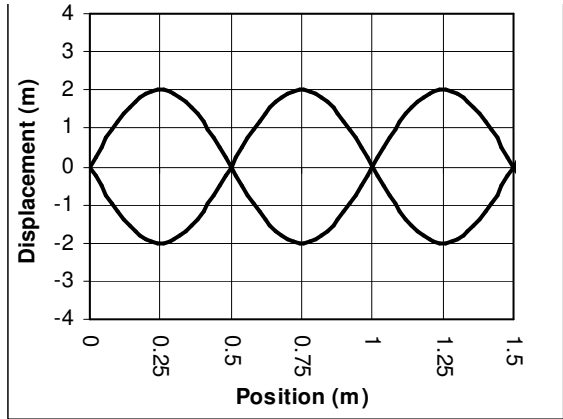Name: _____

Period:_____
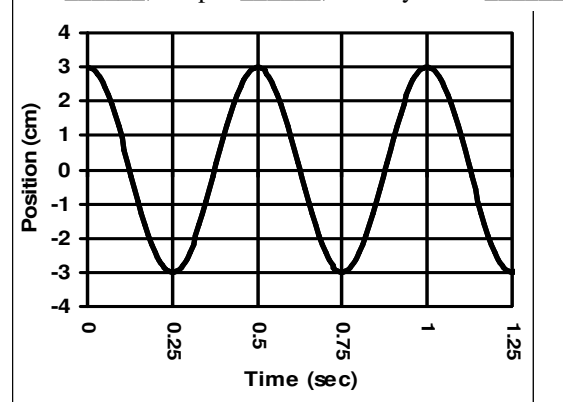
HW Unit 10:6—Standing Waves
Mr. Murray, IPC
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A-day: Due Thurs., 5/3 (Assig: 5/1)
B-day: Due Fri., 5/4 (Assig: 5/2)

λ = _____; Amp = _____; # of cycles = _____

Displacement (m) vs Position (m)

λ = _____; Amp = _____; # of cycles = _____

Position (cm) vs Time (sec)

1. Which one is a standing wave? Left or right.

2. Mark the nodes and anti-nodes of the standing wave.

3. Mark the crests and troughs of the moving wave.

4. Above each graph give:
   A) Wavelength;
   B) Amplitude;
   C) # of cycles shown.

5. Which graph has more energy.

6. If a wave's eighth harmonic (H_8) has a frequency of 24 Hz, what is it's fundamental?

7. How many antinodes equals 1 wavelength?
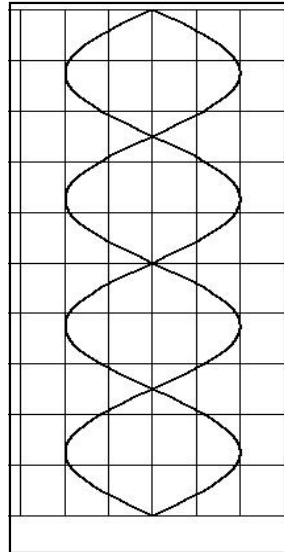
8. Your person yells at you from across a field. If it takes 2 seconds for their words to get to you….
   A) How fast is their sound coming towards you?

   B) Find the width of the field.
   Variables: Equation: Solve:

9. For the standing wave on the left:

   A) Label the nodes and anti-nodes

   B) How many wavelengths is it?

   C) What harmonic is it?

   D) If its frequency is 48 Hz, what is it's period?

   E) What is the frequency fundamental?