

NAME \_\_\_\_\_  
PT PHYSICS

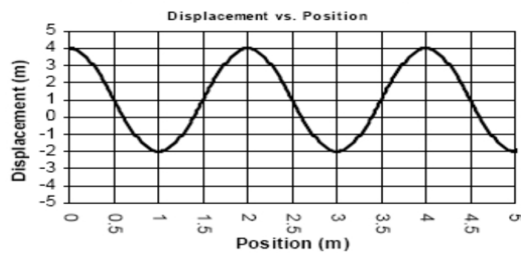
Waves Worksheet

1. You hear a plane 4 seconds after you see it. The speed of sound is 343 m/s. Find the distance to the plane.

Givens:  $t =$  \_\_\_\_\_ sec      $d =$  \_\_\_\_\_ m      $v_s =$  \_\_\_\_\_ m/s

Equation:

Use the graph to answer these questions:



2.  $\lambda =$  \_\_\_\_\_

3. 1 cycle is from 1 m to \_\_\_\_\_;

4. 1/2 cycle is from 0 m to \_\_\_\_\_.

5. Amplitude (A) = \_\_\_\_\_

6. Total number of cycles: \_\_\_\_\_;

7. Draw a wave on the graph above with  $\frac{1}{2}$  the wavelength and  $\frac{1}{2}$  the amplitude

8. The wave above is a sound wave with a speed of 343 m/s; find frequency:

Givens:  $\lambda =$  \_\_\_\_\_ m      $f =$  \_\_\_\_\_ Hz      $v =$  \_\_\_\_\_ m/s

Equation:

9. A wave's velocity is 90 m/sec with a frequency of 6 Hz. What is its wavelength?

Givens:  $\lambda =$  \_\_\_\_\_ m      $f =$  \_\_\_\_\_ Hz      $v =$  \_\_\_\_\_ m/s

Equation:

10. A wave has a wavelength of 20 m and a velocity of 50 m/s. Find its frequency.

Givens:  $\lambda =$  \_\_\_\_\_ m      $f =$  \_\_\_\_\_ Hz      $v_s =$  \_\_\_\_\_ m/s

Equation: