## **Honors Physics: Homework 2**

 Mr. Jones, your teacher, decides to measure the wavelength and period of a sound wave. According to his calculations, the wavelength is about 310 centimeters and the period just so happens to be 0.009 seconds. What is the velocity of the wave?

2. Sitting on the dock of a bay, you count 25 complete wave passes in two minutes which travel 2 meters in  $1\frac{1}{3}$  seconds. What is the wavelength between each crest?

3. Sketch a graph of the following function:  $y(x) = A\sin(\frac{2\pi}{1.5 m}x)$ 

4. Solve for the wavelength from the following function: 0.62  $m = (0.7 m)\cos(\frac{2\pi}{\lambda} 0.41 m)$ 

5. Assume the wave from problem #4 is traveling at a velocity of 342 m/s. Find the period of one complete wave cycle.