Wave Practice Problems & Review Questions Name _____ Hour_____

Show the, formula, setup & solution w/ unit. Use a separate piece of paper or the back to show your work.

_____ 1. What is the velocity of a wave with a frequency of 760 Hz and a wavelength of 0.45 m?

_____ 2. A wave has a velocity of 330 m/s. Its wavelength is 15 m. Calculate the frequency of the wave?

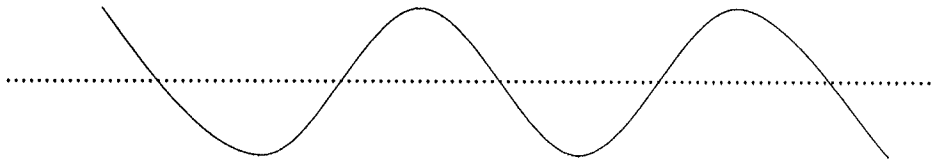
_____ 3. Define amplitude of a transverse wave?

_____ 4. The amplitude of a rope wave is affected by _____.

_____ 5. If the velocity of a wave remained constant but you increased its frequency, would the wavelength increase, decrease or stay the same?

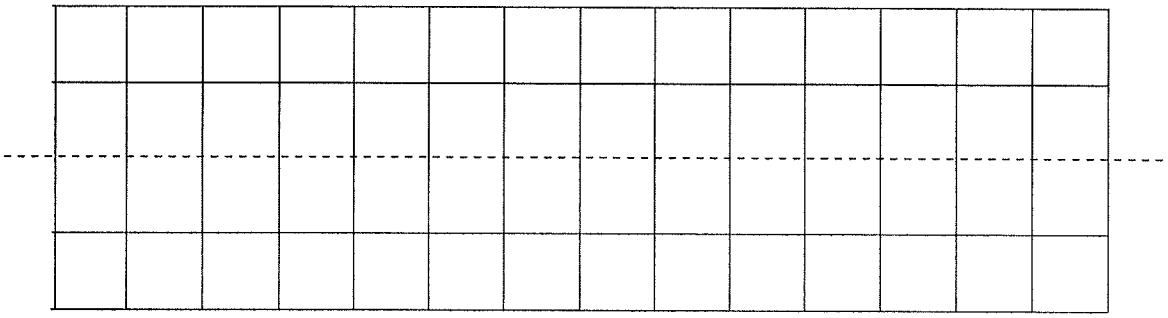
_____ 6. A wave has a velocity of 345 m/s. Its frequency is 2050 Hz. Find its wavelength.

7. On the wave diagram below label the following: crest, trough, rest position, 1 wavelength & the amplitude.



8. Between the lines below draw a compression (longitudinal) wave with a 1 cm compression and a 4 cm rarefaction.

9. Draw a transverse wave below. Use a ruler to give the first wave a 2 cm wavelength and a 1cm amplitude. Use the dotted line as the rest position. Continue your wave through the graph.



10. On the grid below draw a transverse wave with amplitude of 2 units and a frequency of 1 Hz. Continue your wave through the graph.