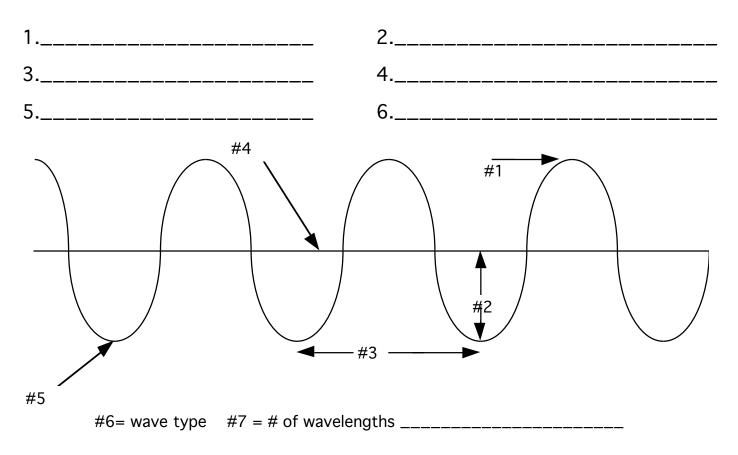
physics unit 10a - waves

Problems A:

- 1. What do we call the substance that "waves"?
- 2. What do we call the high point of a transverse wave?
- 3. What do we call the height of a wave?
- 4. What do we call the thing that is transferred in a wave?
- 5. What do we call the low point of a transverse wave?
- 6. What do we call the type of wave that disturbs the medium at right angles to the direction of wave flow?
- 7. What do we call the type of wave that disturbs the medium in the same direction the wave flows?
- 8. What do we call the stretched out portion of a longitudinal wave?
- 9. What do we call the scrunched up portion of a longitudinal wave?
- 10. What do we call one crest plus one trough?
- 11. What do we call how many waves pass a point in a time period?
- 12. When people do "the wave" what is the medium? What type of wave is it?
- 13. Label the diagram, placing the name of the portion or type of the wave in the blanks below:



- 15. What is the unit of frequency? of velocity? of wavelength?
- 16. What do we call the pivot point of the standing wave?
- 17. What do we call the point of maximum displacement in a standing wave?
- 18. What do we call a wave with a regular, repeating pattern?
- 19. What must you do to increase the amplitude of a wave? How does changing the amplitude affect the wave's:

speed,

wavelength

and frequency?

- 20. A wave rolls by your boat three times every second. If one crest is just touching the bow of your boat as another is leaving the stern and your boat is 13m long, how fast are the waves traveling? (39 m/s)
- 21. If microwaves travel at 299 792 458 m/s, and have a frequency of 11.8 GHz, how big are they? (.0254 m)
- 22. What do we call waves that curve around corners?
- 23. What do we call waves that bend when changing mediums?
- 24. What do we call waves that bounce back?
- 25. What do we call it when waves add to make bigger waves?
- 26. What do we call it when waves partially or completely cancel each other?
- 27. What do we call the type of wave that needs no medium?
- 28. What do we call a wave that must have a medium to wave in?
- 29. What is an echo?

30. Sound travels at 1498 m/s in water. A sonar signal is sent from a ship down into the water and a reflection is detected off a submarine 2.36 seconds later. How deep do they drop the depth charges to blow the sub up? (1770 m)