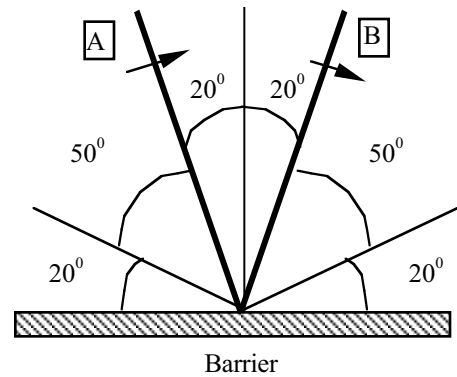


PHYSICS
 PROBLEMS: WAVE BEHAVIOR
 (Reflection Refraction, Wavelength, Frequency,
 Velocity...)

NAME _____
 DATE _____ PERIOD _____

SHOW METHOD NEATLY AND CLEARLY WHERE APPLICABLE .

1. In the figure at the right, the heavy lines are wave crests, and the arrows represent the directions of travel of the pulses.



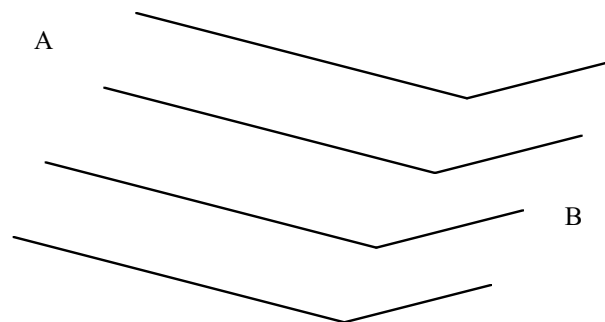
- a) Which is the incident pulse? _____
- b) Which is the reflected pulse? _____
- c) What is the angle of incidence? _____

2. In the figure below, use wavelength measurements to determine the index of refraction in passing from:

- a) deep water into shallow water

- b) shallow water into deep water

3. These questions are based on the drawing below, which has been traced from a photograph of waves in a ripple tank.



a) Which of the regions, A or B, represents deep water and which represents shallow water? How do you know?

b) Determine the value of the index of refraction passing from deep water into shallow water by measuring wavelengths.

c) Determine the value of the index of refraction passing from shallow water into deep water by measuring wavelengths.

d) Determine the value for the case in part (b) by measuring angles.

