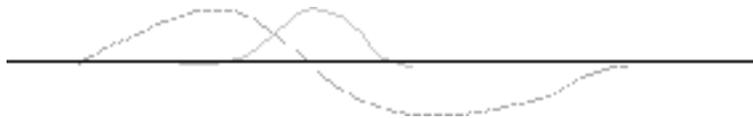


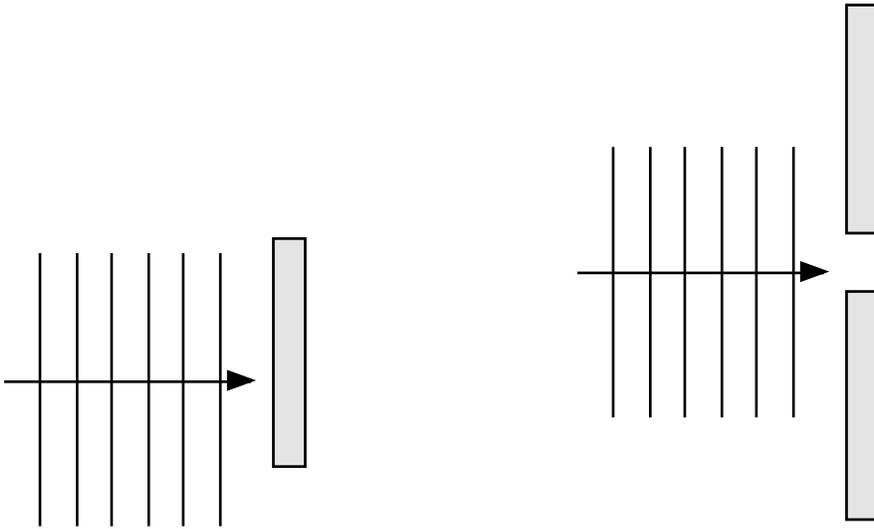
1. A wave has a period of 0.05 s. What is its frequency?
2. Sven's favourite radio station broadcasts on a carrier wave frequency of 1200 kHz. What is the wavelength of the carrier waves?
3. What type of interference results in two waves adding to produce a node?
4. If the frequency of the waves in a two-source interference is decreased, what happens to the spacing between the nodal lines?
5. There is no question 5.
6. Water waves are moving toward a sea wall at an angle of 15° . What will be the angle of the reflected waves?
7. When a wave is transmitted through a boundary and thus refracted, not all of the energy is transmitted across the boundary. What happens to the rest of the energy?
8. The velocity of waves in medium A is 10 cm/s. The velocity in medium B is 15 cm/s. What happens to the frequency of waves moving from medium A to medium B?
9. A water wave passes from shallow water into deep water. Describe (using the terms *increases*, *decreases*, or *stays the same*) how the wave changes in terms of
 - a) its frequency
 - b) its wavelength
 - c) its speed
10. A wave has a speed of 10 cm/s and a wavelength of 0.05 cm. What is its frequency?

11. When water waves enter the shallower water of the beach at an angle, do the waves become more parallel to the beach, or more perpendicular?
12. When waves meet in phase, will the interference be destructive or constructive?
13. When waves curve around the sharp edge of a barrier, this phenomena is called:
14. Which colour of light will be refracted more, red or violet?
15. The index of refraction for a boundary is 1.20. If the incident waves are of wavelength 3.0 cm, and the refracted waves are travelling at 10 cm/s, what is the frequency of the refracted waves?
16. The index of refraction as a wave passes from medium A to medium B is 1.60. If the angle of refraction is 34° , what was the angle of incidence?
17. Sketch the result of the two waves below passing through one another, using the principle of superposition.



18. If Lir runs away from you while screaming, will his voice be higher pitched, lower pitched, or the same pitch as if he were standing next to you and screaming in your ear?

19. Draw the rest of the wave fronts as they pass the barriers below: (use a ruler where appropriate!)



20. Draw the rest of the wave fronts and the wave ray as the wave passes across the boundary between the two media.

