Name:

Waves in class Assignment

1. Bob the fisherman is standing on a dock and counts 30 waves that hit the dock in 45 seconds, what is the frequency of the waves?
2. Nikki stands 170 meters away from a steep canyon wall. She shouts and hears the echo of her voice one second later. What is the speed of the wave?
3. 12 pulses are created every .10s in a tank of water. What is the speed of the propagation wave if the wavelength of the surface wave is 1.60cm?
4. What is the difference between transverse waves and longitudinal waves?
5. How are constructive and destructive interference similar?
6. How are constructive and destructive interference different?
7. What happens to the incident wave when it has a fixed end?
8. If an incident wave has a positive displacement, what kind of displacement does a reflected wave have if it does not have a fixed end?
9. Draw an example for constructive interference. Draw a diagram of the before, during, and after the waves have passed through each other.
10. Draw an example for destructive interference. Draw a diagram of the before, during, and after the waves have passed through each other.
11. What is refraction? What causes refraction?
12. What is diffraction?