Year 10 Science: Waves: oscillations, amplitude, wavelength and frequency

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. A buoy rises and falls 12 times in one minute. What is the frequency of the waves, and their period?

2. On a diagram, 5 complete waves span 2.0 m. What is the wavelength?

3. A wave is 0.6 m from crest to trough. What is its amplitude?

4. Explain why a duck on a pond is not carried to the shore by ripples.

5. Why can astronauts on a spacewalk not hear an explosion nearby, even though they could see it?

Fix the mistake

6. Correct this statement: "Waves carry the water towards the beach."

7. Correct this statement: "A wave that is 1.6 m from trough to crest has an amplitude of 1.6 m."

8. Correct this statement: "30 waves in 10 s, so the frequency is 10 ÷ 30 = 0.33 Hz."

9. Correct this statement: "One wavelength is the distance from a crest to the next trough."