

# Wave Properties

## Practice Your Understanding

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Using the Wave Properties simulation, set the amplitude to 10 m, the wavelength to 3.14 m, and both the frequency and phase constant to 0 Hz and 0 rad/m respectively. In the outputted function, is the wave moving? What is the height of the wave? What is the wave number of the wave? Is the wave in phase or out of phase? Record your observations and answers in the box below.

2. Using the Wave Properties simulation, set the amplitude to 13 m, the wavelength to 5.50 m, the frequency to 0.5 Hz, and phase constant to 0 rad/m respectively. In the outputted function, is the wave moving? What is the height of the wave? What is the wave number of the wave? Is the wave in phase or out of phase? Record your observations and answers in the box below.

3. Using the Wave Properties simulation, set the amplitude to -4 m, the wavelength to 1.50 m, and both the frequency and phase constant to 0 Hz and 0 rad/m respectively. In the outputted function, is the wave moving? What is the height of the wave? What is the wave number of the wave? Is the wave in phase or out of phase? Record your observations and answers in the box below.

4. Using the Wave Properties simulation, set the amplitude to 22 m, the wavelength to 2.25 m, and both the frequency and phase constant to 0 Hz and 1.571 rad/m respectively. In the outputted function, is the wave moving? What is the height of the wave? What is the wave number of the wave? Is the wave in phase or out of phase? Record your observations and answers in the box below.

5. Using the Wave Properties simulation, set the amplitude to -11 m, the wavelength to 3.25 m, and both the frequency and phase constant to 0 Hz and 3.14 rad/m respectively. In the outputted function, is the wave moving? What is the height of the wave? What is the wave number of the wave? Is the wave in phase or out of phase? Record your observations and answers in the box below.