**OC 4.1 – Wave Properties Name: …………………………………….**

(adapted from Exploring Our Fluid Earth)

1. A wave has a wavelength of 24 m/wave and a period of 4 s. What is its speed?
2. A wave has a speed of 3 m/s and a period of 20 s. What is its wavelength?

1. The speed of a wave is 4.2 m/s. Its wavelength is 12.6 m. What is its period?

1. What is the frequency of a wave with a period of 0.1 s?

1. The frequency of a wave is 0.2 wave/s. What is its period?

1. A diagram of a moving wave is shown below. Use this figure to answer the following questions:
   * + 1. What is the height of the wave?
       2. What is the wavelength?
       3. Can you calculate the frequency of the wave from this information? If so, what is it? If not, what additional information do you need?

[<p><strong>Fig. 4.4.</strong> Diagram of a moving wave</p><br />
](https://manoa.hawaii.edu/exploringourfluidearth/media_colorbox/2341/media_original/en" \o ")

1. The diagram above shows three wave crests moving to the right. When the crest of wave A passed point P, a watch reads 0.00 sec. When the crest of wave B passed point P, a watch reads 10.00 sec.
   1. What is the period of the wave?
   2. What is the speed of the wave?
   3. What is the frequency of the wave?
2. Check your understanding of the following terms by defining them in your own words:
   1. Period
   2. Wavelength
   3. speed
   4. frequency
   5. height
   6. crest
   7. trough
   8. profile