Name _____ Date _____

Analyzing Information
Section 4.1

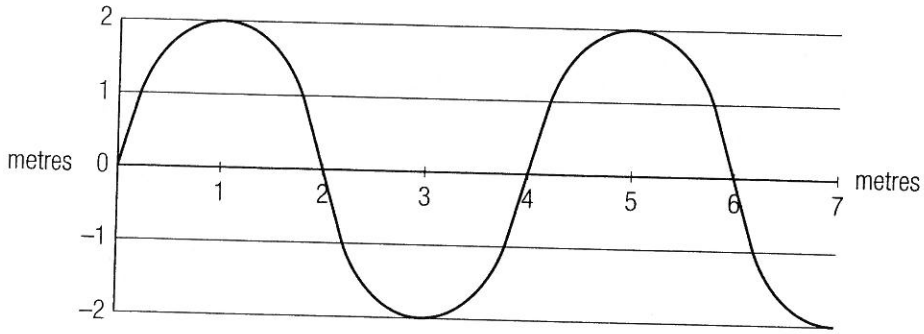
Use with textbook pages 134–138.

Characteristics of waves

Use the information in the graphs to answer the questions.

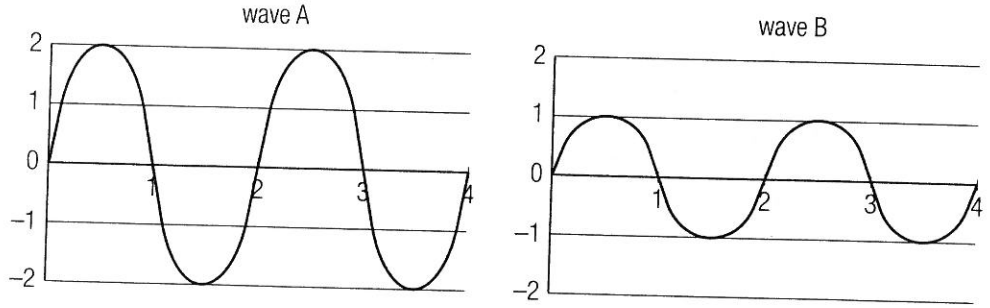
1. How long is the wavelength of the wave below? _____

2. How large is the amplitude of the wave below? _____



3. Which wave below has the smaller amplitude, A or B? _____

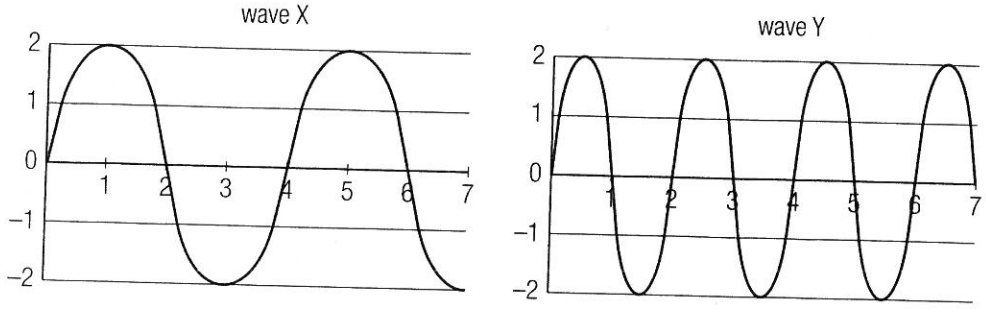
4. Which wave carries more energy, A or B? _____



5. What is the same for waves X and Y below: amplitude, wavelength, or frequency? _____

6. Which wave has a greater frequency, X or Y? _____

7. Which wave has a longer wavelength, X or Y? _____



Use with textbook pages 134–138.

True or false?

Read the statements given below. If the statement is true, write "T" on the line in front of the sentence. If it is false, write "F," and then rewrite the statement so it is true.

1. _____ Waves transfer matter forward.

2. _____ Energy is the capacity to apply a push or pull to an object.

3. _____ A trough is the highest point in a wave.

4. _____ The wavelength is the distance from crest to trough.

5. _____ The amplitude of a wave is the height of a wave crest or the depth of a wave trough from the rest position.

6. _____ The larger the amplitude, the less energy is transported by the wave.

7. _____ Amplitude is the number of motions that occur in a given time.

8. _____ Frequency is measured in units called hertz.

9. _____ The wavelength of a wave increases as frequency increases.