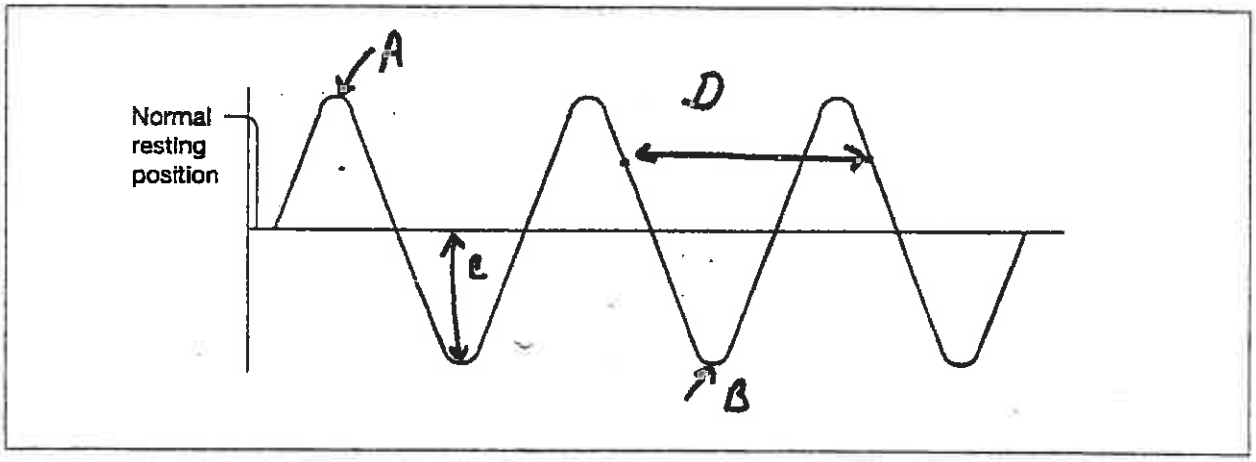
SCIENCE 9 LAB
CHARACTERISTICS OF WAVES

INTRODUCTION: All waves have amplitude, wavelength, and frequency. You will be using this lab to identify wave characteristics.

Building Vocabulary Skills: Identifying Wave Characteristics

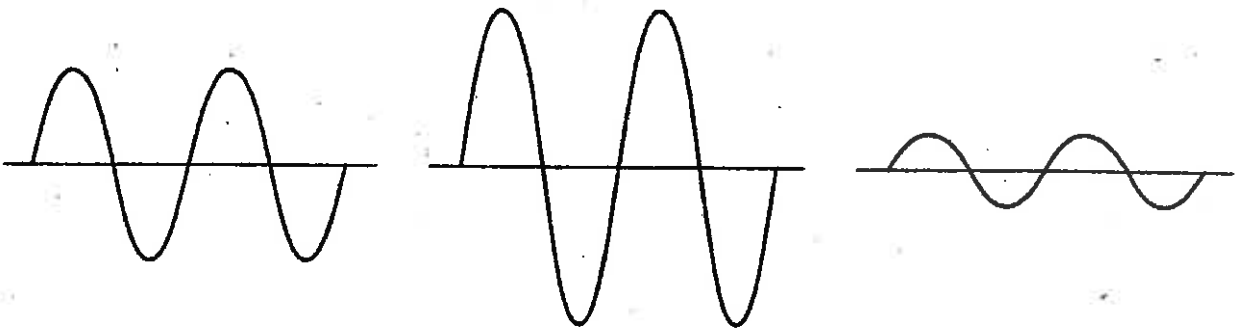
Label the basic characteristics of a wave on the diagram below. Then write a definition of **frequency**.



Frequency is _____

Looking at Waves: Applying the Main Ideas

1. Which of the following three waves carries the most energy? Which carries the least? How can you tell?

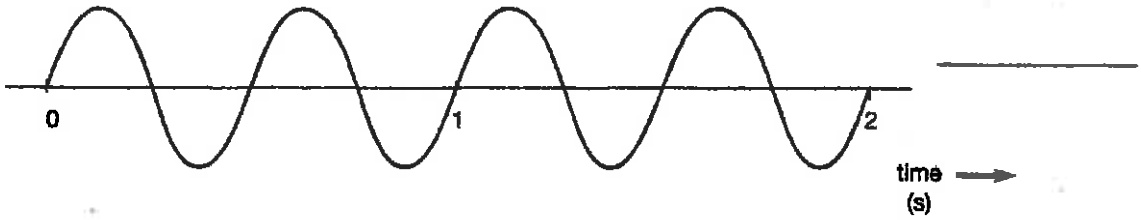


A B C

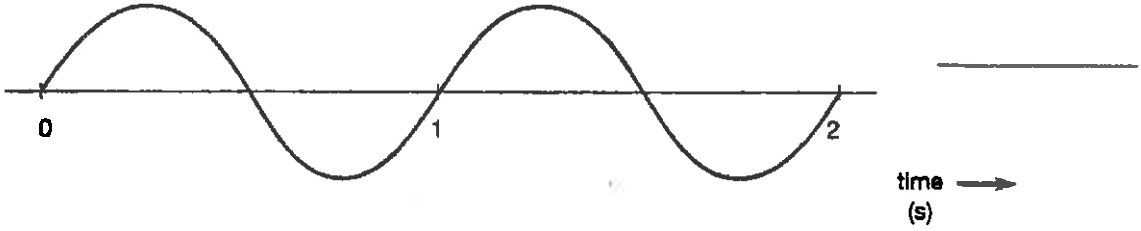
Name _____ Class _____ Date _____

2. Determine the frequency of each wave.

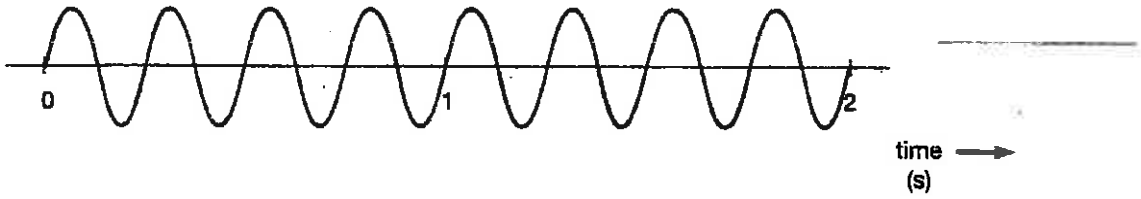
A



B

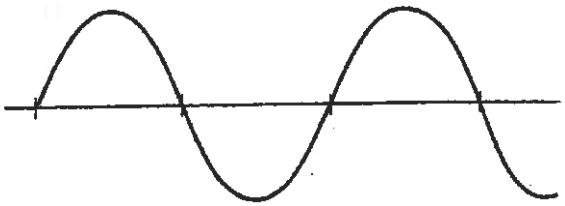


C



3. Use a ruler to determine the wavelength of each wave.

A



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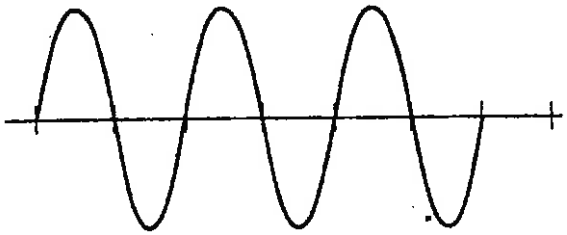
B



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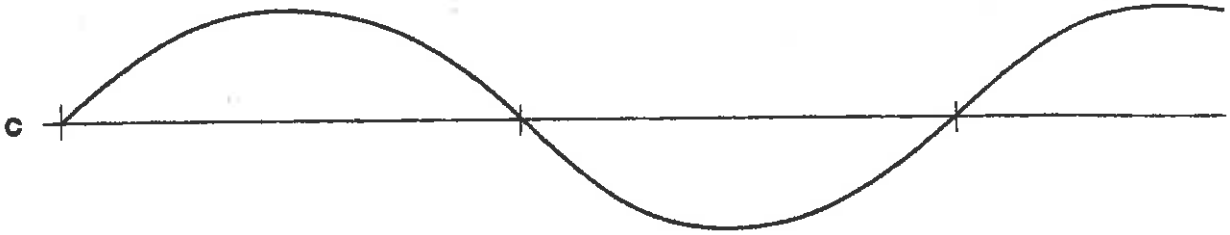
C



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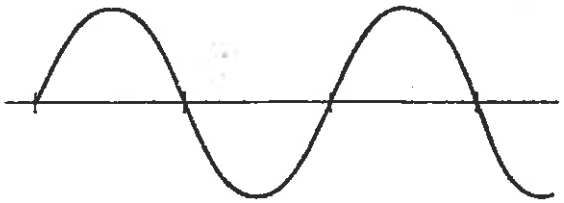
4. Use a ruler to determine the amplitude of each wave.

A



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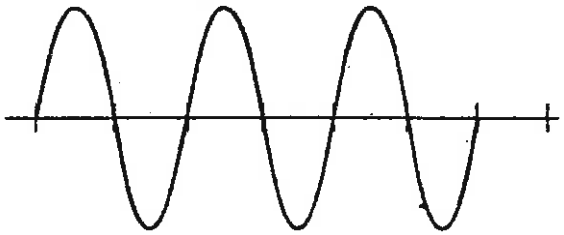
B



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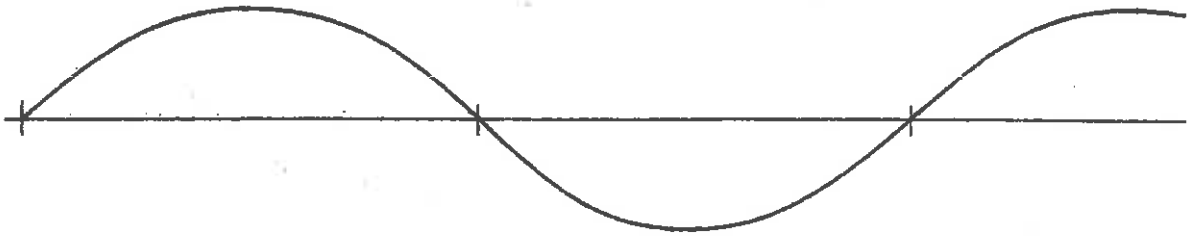
C



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5. **Draw a diagram of a wave with a frequency of 8 Hz, am amplitude of 3 cm and a wavelength of 3.5 cm.**

Draw a diagram of a wave with a frequency of 4 Hz, an amplitude of 6 cm and a wavelength of 4 cm.