Name _____ Date _____ Class _____

MATH SKILLS TRANSPARENCY WORKSHEET 5

Interpreting Waves

Use with Chapter 5, Section 5.1

1. Look at the two waves shown. What is the speed of each wave?

_____

_____

2. Look at the two waves shown. Which wave has a higher frequency? Which wave has a longer wavelength?

_____

_____

3. Assume that wave A has a wavelength of 699 nm. Calculate the frequency of the wave. Show your work.

4. Assume that wave B has a wavelength of 415 nm. Calculate the frequency of the wave. Show your work.

5. Compare your calculations in question 4 with your answer to question 3. Do your calculations support your answer in question 2?

_____

_____

6. If wave A has a frequency of $4.60 \times 10^{14}\ s^{-1}$, what is its wavelength in nanometers? Show your work.

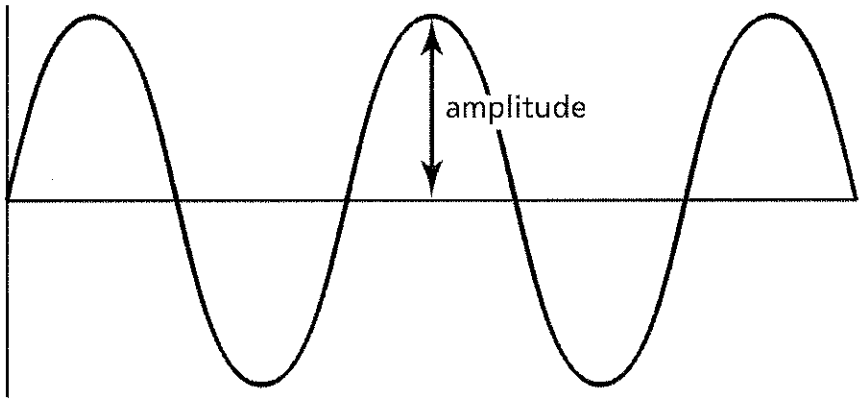
Name _____ Date _____ Class _____

MATH SKILLS TRANSPARENCY MASTER 5

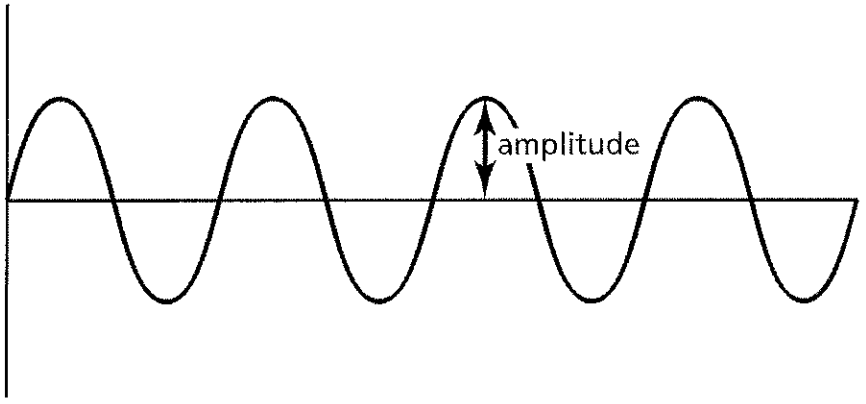
Interpreting Waves

Use with Chapter 5, Section 5.1

A



B



Waves A and B are both electromagnetic waves.

$c = \lambda\nu$ for all electromagnetic waves.