Waves A and B are both electromagnetic waves.  

\[ c = \lambda \nu \]  

for all electromagnetic waves.
Interpreting Waves

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 $4.60 \times 10^{14} \text{ s}^{-1}$, what is its wavelength in nanometers? Show your work.