$c = \lambda \times f$ $c = 3.0 \times 10^8 m/s$ $E = h \times f$ $h = 6.63 \times 10^{-34} J \cdot s$

1. Find the wavelength of light if the frequency is $4.3 \times 10^{13} Hz$.

2. Find the frequency if the wavelength is $1.7 \times 10^{-4} cm$.

3. Find the energy of the wavelength of light in problem #2.

4. Find the wavelength if the frequency is $7.2 \times 10^{15} Hz$.

5. What is the energy if the frequency is $8.5 \times 10^{14} Hz$.

6. The wavelength of a certain electromagnetic wave is 660nm. What is the frequency of the wave? What is its energy?

7. The frequency of a wave is $5.06 \times 10^{14} Hz$. What are the energy and the wavelength of the wave?

8. A wave has a wavelength of 5m. What is the energy of the wave?

9. Which wave has a higher energy, $\lambda = 340nm$ or $\lambda = 0.760mm$?

10. The energy of a wave is determined to be $4.5 \times 10^{-19} J$. What is the frequency? What is the wavelength?