Electromagnetic Waves

Name: _____

Part 1: Fill in the Blank

1) The speed of light is _____ meters per second.

2) All waves can be described in terms of their amplitude, wavelength and _____.

3) The frequency of infrared radiation is _____ than the frequency of gamma radiation.

4) The _____ of a wave is the number of complete waves passing a fixed point in a given time.

5) The wavelength of microwave radiation is _____ the wavelength of visible light.

Part 2: Calculations

6) Calculate the wavelength of a microwave which has a frequency of 5.00×10^{11} Hz.

7) What is the frequency of an x-ray with a wavelength of 4.50×10^{-8} m?

8) How much energy does a wave have with a frequency of 9.76×10^{15} Hz?

9) What is the frequency for a wave with 3.74×10^{-17} J?

Part 3: Fill in the types of radiation and the blanks:

	Type of Radiation	
Highest Frequency		_____ Wavelength
Lowest Frequency		_____ Wavelength

Answers: 6) 0.00060 m   9) 5.64×10^{16} Hz   Adv Chem