

Name \_\_\_\_\_

Best Reason to Rebel \_\_\_\_\_

**Show your work, circle your answers, and use sig figs to receive full credit.**

1. What is the wavelength of a 150. kHz radio wave?

What is the frequency of a 2.00 m radio wave?

2. What is the wavelength of a 1.80 eV photon?

What is the energy in electron volts of a 150. nm photon?

3. 400. nm light ejects photo-electrons from a metal that have a stopping potential of 1.17 V. What is the work function of the metal in electron volts?

What wavelength of light would eject photo electrons with a stopping potential of 2.60 V?

4. A photon creates an electron/positron pair each having 0.211 MeV of kinetic energy. What is the wavelength of the photon?

5. What is the velocity of an electron with a wavelength of 12.0 nm?