**IB Physics**

**Pre-Quiz 27.1**

Name

Best Reason to Rebel

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

1. What is the frequency of a 2.0 m radio wave? (1.5 x 108 Hz)

2. What is the energy in electron volts of a 150 nm photon? (8.3 eV)

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? (1.93 eV)

4. How fast must an alpha particle (m = 6.64x10−27 kg) go to get within 5.0x10-15 m of an Iron nucleus (Z = 26) (2.69x107 m/s)

5. What is the velocity of an electron with a wavelength of 12 nm? (6.1 x 104 m/s)