* Show your work.
* Show the UNITS and what cancels.

Name: _____

ID#: _____

CHEM - EMR & the Atom (Eng) - 1 -

1. Calculate the energy of the photon emitted when an electron in a H atom falls from the fifth level to the ground state.

2. Photons of 182 kJ/mol are emitted when $e^{\ominus}$'s in H fall to the second energy level. Determine their original level.

Name: _____

3. Carbon has an ionization energy of 1086 kJ/mol. What wavelength of E.M.R. is just sufficient to ionize it ?

4. You shine EMR with wavelength 189 nm onto the surface of tin (Sn) metal. The emitted electrons have 3.43×10^{-19} J of kinetic energy. Determine the work function of tin.