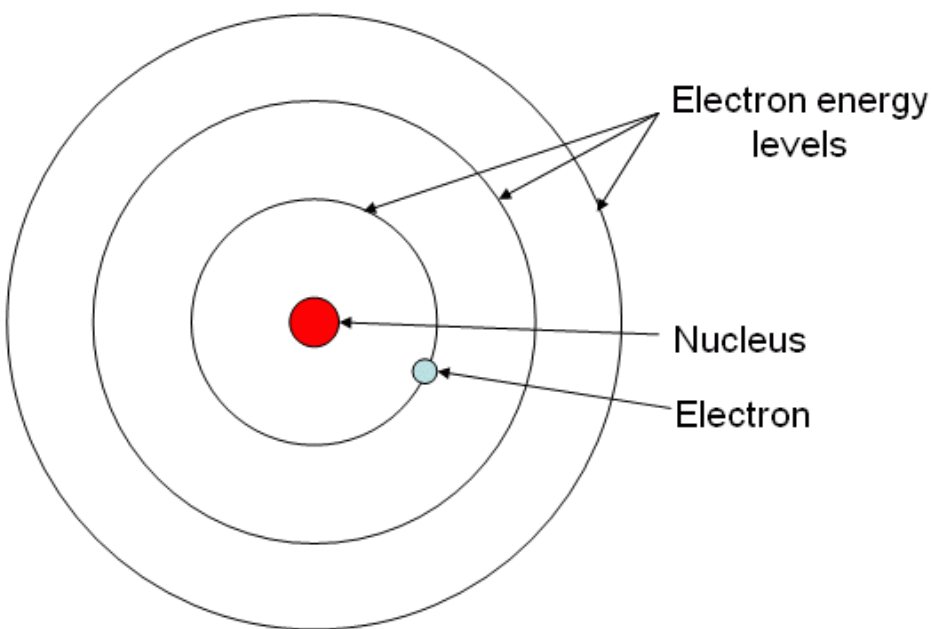

NAME:

1. What is a photon?

2. The diagram below shows an atom of Hydrogen with some of its possible electron orbits (three energy levels are shown). Electron is currently in its ground state.



- a. Suppose you HEAT the atom. On the diagram, show possible electron transitions (use arrows to indicate where the electron can go).
 - b. How many emission lines (distinct colors) can this configuration yield (remember, the excited electron needs to go back to its ground state to emit a photon)?

3. What is a Flame Test?