Name: _____

1. Below are the energy levels for a Bohr atom. Complete the following table by determining the energy and wavelength of the photons that are absorbed in each energy level transition.

	Energy (eV)
N = 1 (Ground)	- 12.5
N = 2	- 7.0
N = 3	- 4.0
N = 4	- 2.5

	Energy Level Transition	Photon Energy	Photon Wavelength
A	1 to 2		
B	1 to 3		
C	1 to 4		
D	2 to 3		
E	2 to 4		
F	3 to 4		

2. Below are the energy levels for a Bohr atom.

	Energy (eV)
N = 1 (Ground)	- 10.8
N = 2	- 4.3
N = 3	- 2.0

If an electron is excited to the N = 3 energy level, what are all of the possible photon wavelengths that could be emitted as the electron returns to its ground state?