Ch 29 HW Quiz #1A

An electron is in energy level n = 7 in a neutral Hydrogen atom.

a) What is the shortest wavelength of light that can be emitted by an electron transitioning out of this level?
b) What is the longest wavelength of light that can be absorbed by an electron transitioning out of this level?
c) Which has a larger energy, a photon emitted when an electron moves from n = 6 —> 2 or a photon emitted when the electron moves from n = 2 —> 1? Calculate both and compare.