Name: Regular Lab Day (Tues, Thurs): \_\_\_\_

**Post-Lab Quiz: The Hubble Law**

**Instructions:** Have your laboratory checked by the instructor or TA, and then answer all of the questions below. You are welcome to refer back to your laboratory handout to answer the questions; in fact, for some questions, it’s necessary.

1. The value of the Hubble constant, as determined recently by researchers using the Wilkinson Microwave Anisotropy Probe (WMAP) satellite, is H0=69.8 (km/s)/Mpc. The Seyfert galaxy NGC 1068 has a recession velocity of 1150 km/s. What is the distance to NGC 1068?
2. The Hubble Law makes it appear that we are located at the center of the universe, since all galaxies expand away from the Local Group. Discuss whether this is a reasonable interpretation; do we have a unique location in the universe?
3. Why do (nearly) all galaxies have spectra that are redshifted (that is, the spectral features are shifted to longer wavelengths)? Why aren’t there as many galaxies with blueshifted spectra?
4. Based on the galaxies surveys you’ve encountered in this activity, describe the spatial distribution of galaxies in our part of the universe.