Name: .....

ASTRONOMY 1102 - Section 1

Instructor: Juhan Frank

Spring 1999

Homework # 9 due Mon. Apr. 26th

Expansion of the Universe: Hubble's Law

1) Hubble's Law is an empirical linear relationship between the radial velocity of recession and the distance of galaxies. Use Figure 34-1 B (bottom right of page 567) to calculate the Hubble constant as determined by Hubble and Humason in 1931. Please show explicitly the steps you follow to calculate it.
Compare with modern values.

2) Taking the current best value for H_0 = 65 km/s/Mpc, calculate the *approximate* distance to a galaxy whose redshift is z = 0.043.