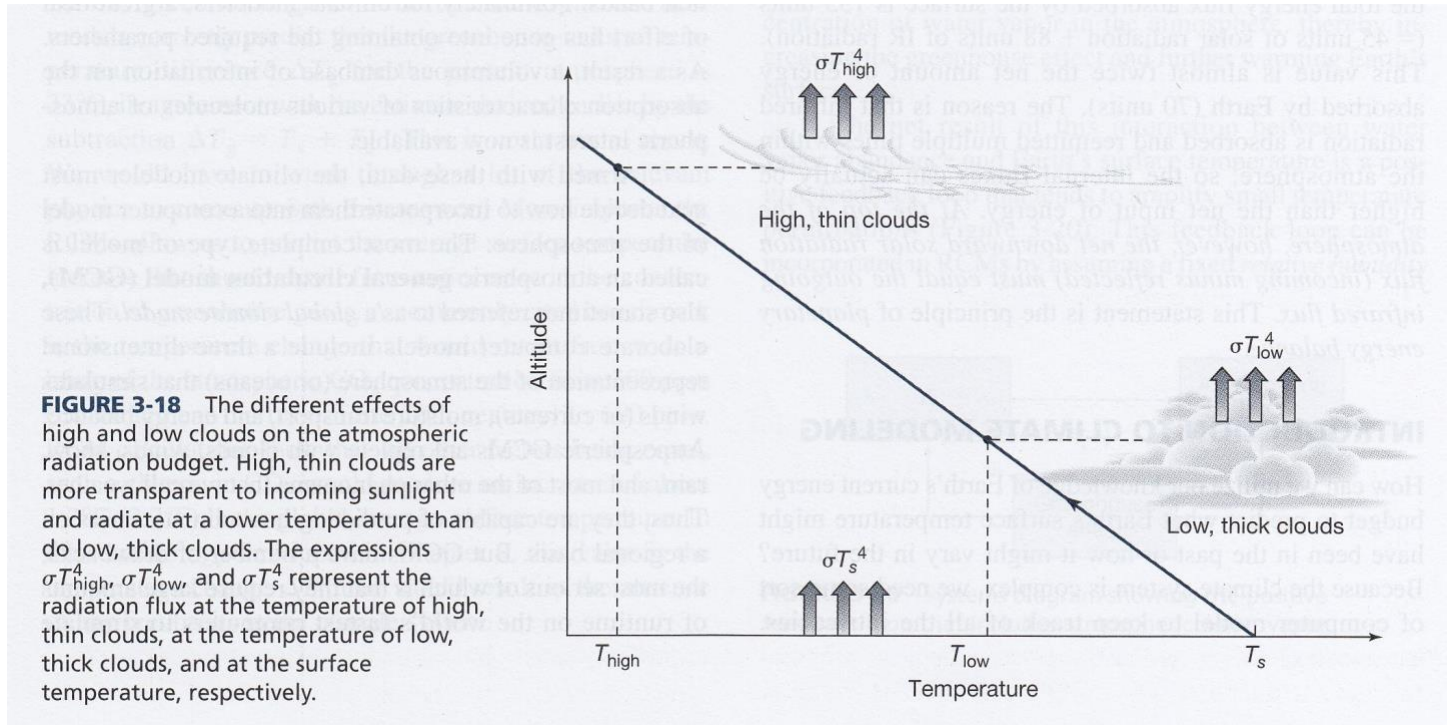


NAME: _____



1. Calculate and plot the emission spectra of (1) high, thin clouds, (2) low, thick clouds, and (3) the surface. Assume they all radiate as blackbodies. Plot all three curves (as a function of wavelength) on the same graph so that you can see differences in the position of their peak and their area (as much as possible.) Use temperatures from the US Standard Atmosphere.
2. Use the barometric law to calculate pressure as a function of altitude from the surface to 50 km. Do it in a way that utilizes temperature information from the US Standard Atmosphere. Assume pressure at the surface to be 1013.25 mb. Compare your results to an isothermal atmosphere at the average temperature from 0-50 km.