1) You may use your calculator, wherever necessary, to do the following problems from the end of chapter 7, on page 179:

Problem 8 (done in class, but I suggest you try again on your own and write down your answers so that you can review this before the next test).

Problem 9 (You may use calculators)

Problem 11 (Some calculation, mostly thinking...)

2) A spectral line with rest wavelength of 400nm is detected in a quasar as an emission line at a wavelength of 500nm. What is the speed of recession of this galaxy (approximately-NO CALCULATOR NEEDED).

3) What kind of spectrum do you see along the directions shown on the diagram?

THIS LOOKS A BIT LIKE THE STAR FORMATION REGION IN ORION.

CLOUD OF LOW DENSITY GAS

HOT BLUE STAR

EARTH