

**AY 5, Summer Session I, 2008:**  
**Quiz #1**

Draft: June 30, 2008

1. What are the three types of spectra? With a phrase, describe what each can tell you about an object?
  
2. Star A has a temperature of 10,000 K and star B has a temperature of 6,000 K. Which one radiates more red light?
  
3. In words, how does the *energy* of the photon with the wavelength of the peak intensity of a blackbody change when the blackbody's temperature  $\theta$  changes?

If the temperature doubles, how does the energy change?

4. What are two concurrent behaviors of the Universe since the Big Bang?
  
5. What is Doppler redshift? What is cosmological redshift?
  
6. What determines the size of our observable Universe?
  
7. What is "the definitive evidence for the expansion of the Universe from a hotter, denser, primordial state"?
  
8. Is everything expanding everywhere? What is the evidence for "yes" or "no"?