

Name: \_\_\_\_\_

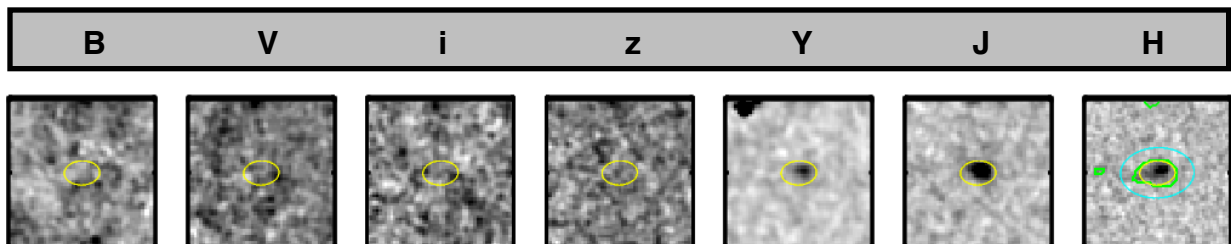
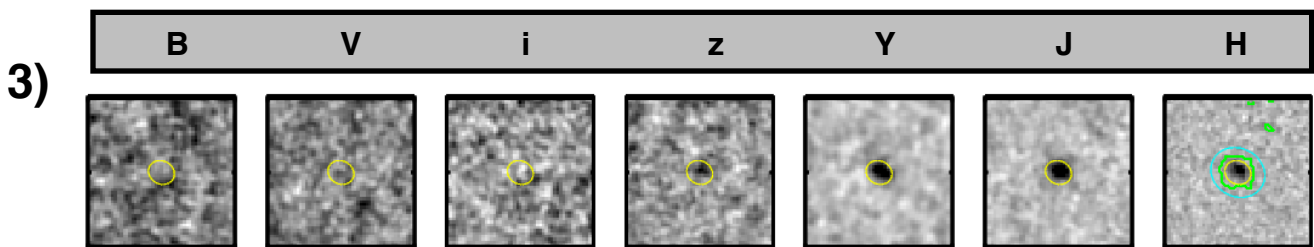
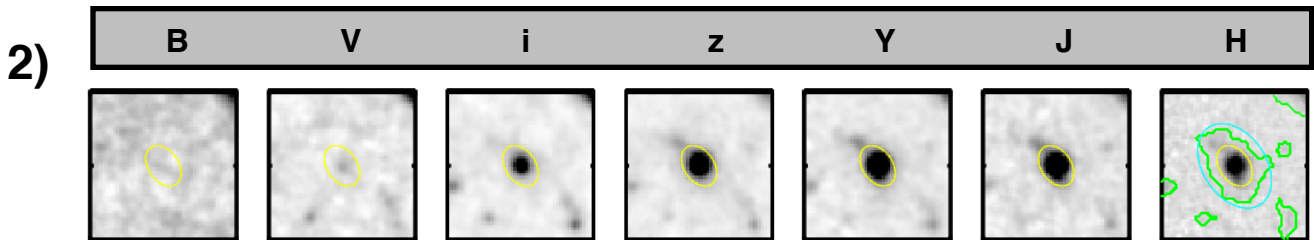
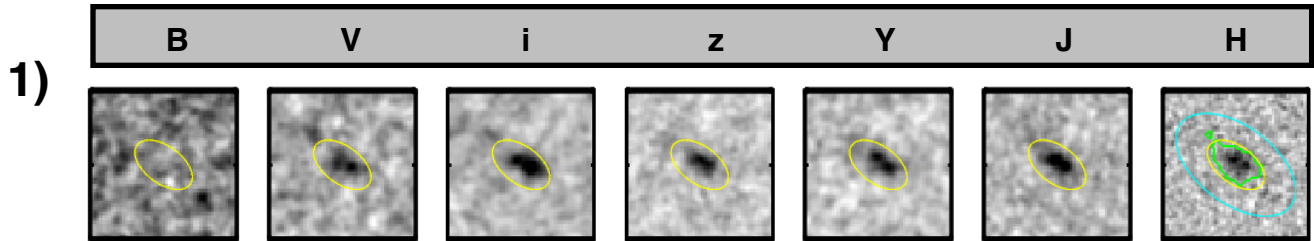
## Worksheet - Photometric Redshifts

AST 301 - Professor Finkelstein

Recall that most galaxies exhibit a spectral break at rest-frame 1000 angstroms (= 100 nanometers), and that the observed wavelength is equal to the rest-wavelength times one plus the redshift, or:

$$\lambda_{\text{observed}} = \lambda_{\text{rest}} * (1+z)$$

For each of the following observations, tell me the approximate redshift of the galaxy shown. Each row shows images of one galaxy in seven separate filters. On the board, I am showing what we call "filter response curves", which show which wavelengths of light are transmitted by a given filter. Use the images below to figure out what wavelength the Lyman break appears to be at, and use the filter curves to figure out the approximate redshift.



# Filters

