Is this what we want for the project?

```
In [151]: bin_num = 10
          bin_size = 2048/bin_num
```

```
In [152]: depth = []
          wavelength = []
          for j in range(0,bin_num):
              #print j*bin_size, (j+1)*bin_size, j
              trimmed_light = []
              trimmed_wavelength = []
              for i in range(1,145):
                  spec1 = hdulist1D[i]
                  trimmed_light.append((sum(spec1.data.field(1)
                      [j*bin_size:(j+1)*bin_size])))
                  cur_max = max(spec1.data.field(1)[j*bin_size:(j+1)*bin_size])
                  cur_min = min(spec1.data.field(1)[j*bin_size:(j+1)*bin_size])
                  trimmed_wavelength.append(spec1.data.field(0)[(j+0.5)*bin_size])
              wavelength.append(trimmed_wavelength)
              depth.append(cur_max - cur_min)
              pylab.plot(trimmed_light/trimmed_light[0], label = ("$\lambda$ "+str((tr
          pylab.xlim([30,130])
          pylab.ylim([0.984,0.990])
          pylab.title(str(j+1)+" bin light curves")
          pylab.xlabel("time")
          pylab.ylabel("Flux")
          pylab.legend()
```
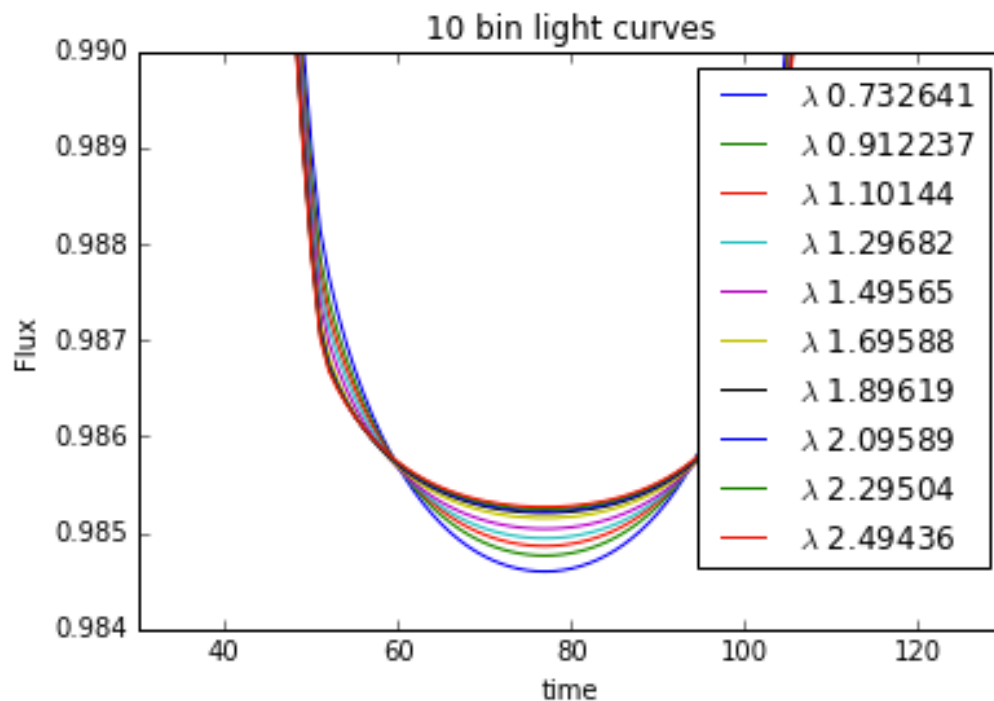
```
pylab.plot(wavelength, depth)
pylab.title('10 Binned Spectra Wavelength vs. Transit Depth')
pylab.ylabel('Transit Depth')
pylab.xlabel('Wavelength')
pylab.xlim([0.5,2.5])
pylab.show()
```


10 Binned Spectra Wavelength vs. Transit Depth

100 bin light curves

100 Binned Spectra Wavelength vs. Transit Depth