

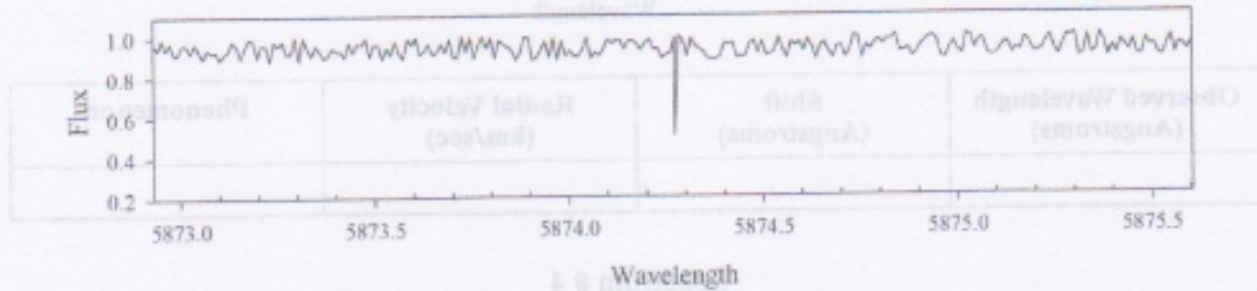
Name _____

Due Date _____ Lab Instructor _____ Section _____

Worksheet # 1

Spectrum # 1

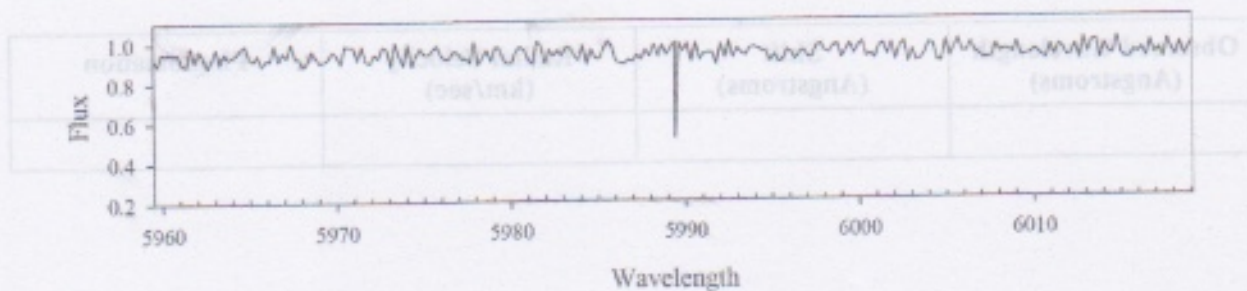
This spectrum is centered on the 5875.6148 Å spectral line found in He I, which is prominent in the photospheres of stars roughly 1000 K hotter than the Sun. Calculate the velocity of the gas producing this line and – from the choices in the datasheet – comment on the nature of this object.



Observed Wavelength (Angstroms)	Shift (Angstroms)	Radial Velocity (km/sec)	Phenomenon

Spectrum # 2

The molecule TiO_2 (titanium dioxide) is a common compound found on Earth (it is the shiny white flecks you find in oil paint, the glaze on pottery, and a major component of sunscreen, since it reflects sunlight from your skin). It is also a complex molecule found in cool, thin atmospheres of low-temperature stars. It has a strong spectral line at the rest wavelength 6680.81 Å.



Observed Wavelength (Angstroms)	Shift (Angstroms)	Radial Velocity (km/sec)	Phenomenon

Continue....