Ex. 20, DOPPLER SHIFTS AND RADIAL VELOCITIES

Data Table

Determination of Chart Scale:

Measured distance between wavelength fiducial lines: _____ cm = _____ Angs.

Chart scale for spectral images (Divide Angstroms by cm): Å/cm

Determination of Doppler Shifts and Radial Velocities:

Star 1 Data

Star 2 Data

Phase	D _{cm}	D _{Ang}	λ _{meas}	Δλ	RV1	D _{cm}	D _{Ang}	λ _{meas}	Δλ	RV2

Exercise 20

Analysis of the Radial Velocity Curve for a Binary Star

Gamma Velocity for PB1:	km/sec								
Computation of the mass ratio, which must be a number less than 1.00.									
Value of RV for star 1 at phase 0.25 read from Radial Velocity Curve:	km/sec								
Value of RV for star 2 at phase 0.25 read from Radial Velocity Curve:	km/sec								
Mass Ratio,q, which is the absolute Value of the ratio of the smaller RV to larger RV at phase 0.25:									
	q =								
Value of RV for star 1 at phase 0.75 read from Radial Velocity Curve:	km/sec								
Value of RV for star 2 at phase 0.75 read from Radial Velocity Curve:	km/sec								
Mass Ratio,q, which is the absolute value of ratio of smaller RV to larger RV at phase 0.7 :									
	q =								
-									

The two values of q should almost be the same number.