

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

Section: \_\_\_\_\_

Source and Color of Line	a (cm)	b (cm)	d (cm)	Wavelength (cm)	Wavelength (nm)	Frequency (s <sup>-1</sup> )	Energy (J/photon)	Energy (kJ/mole)	Rydberg Eq calculation of $\lambda$ (nm)
1. H (red) $n = 3 \rightarrow n = 2$									
2. H (blue) $n = 4 \rightarrow n = 2$									
3. H (violet) $n = 5 \rightarrow n = 2$									
4. He (yellow)									X
5. Hg (green)									X
Show calculation to determine d here:									
6. H $n = 2 \rightarrow n = 1$									IR, Vis, UV
7. H $n = \infty \rightarrow n = 1$									IR, Vis, UV
8. H $n = 4 \rightarrow n = 3$									IR, Vis, UV
9. H $n = \infty \rightarrow n = 3$									IR, Vis, UV
10. H $n = \infty \rightarrow n = 2$									IR, Vis, UV