

HW2: Hydrogen emission spectrum using Rydberg Equation (binder)

$$\frac{1}{\lambda_{\text{vac}}} = R \left(\frac{1}{n_1^2} - \frac{1}{n_2^2} \right) \quad n_2 > n_1 \quad R = 1.09677 \times 10^7 \text{ 1/cm}$$

1) What wavelength (nm) and color of light is emitted when the electron from a hydrogen atom transitions between the n=5 to the n=2 energy levels?

Make an Excel file for energy levels 1 thru 6:

n1 (low)	n2(high)	Wavelength (m)	Wavelength (nm)	EM Range*	Freq (Hz)	Energy (J)
1	2					
1	3					
1	4					
1	5					
1	6					
2	3					
3	4					
2	5					
2	6					
3	4					
.	.					
.	.					
.	.					
5	6					

USE "global variables", aka "universal constants"

* UV, visible (include color), or IR