**Dougherty Valley HS AP Chemistry**

**S-38**

**Atomic Structure**

**Quick Check #2**

**Name: Date: Period: Seat #:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Formulas and Constants | | | | | |
| c = υ | E = hυ | E = | En =  |  = |  |
| c = 2.998 x 108 m/s h = 6.626 x 10-34 J·s Rhc = 2.18 x 10-18 J R = 1.0974 x 107 m-1 | | | | | |

🞎 Calculate the energy of level n=3 of the hydrogen atom.

🞎 Calculate the energy and wavelength of light emitted when an electron drops from level n=5 to n=2.  
 What color will this light be? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

🞎 A runner with a mass of 50.0 kg moves at a velocity of 2.00 m/s.  
 Calculate her deBroglie wavelength as she moves?