**Dougherty Valley HS AP Chemistry Name:**

**Beer’s Law Date:**

 **Period:**

 **Breakout Room #:**

Directions: Complete the table below and determine the concentration of the unknown

**DATA TABLE**:

| **Trial** | **Concentration(mol/L)** | **Absorbance** | **Concentration of Unknown** |
| --- | --- | --- | --- |
| 1 | 0.080 |  |
| 2 | 0.16 |  |
| 3 | 0.24 |  |
| 4 | 0.32 |  |
| 5 | 0.40 |  |
| 6 | **Unknown number**: See Data File Slide |  |  |

| **DISCUSSION QUESTIONS**: | **YOUR ANSWERS** |
| --- | --- |
|  | 1. What is the molar concentration of your unknown sample of copper (II) sulfate solution?
 | [insert calculation image here] |
|  | 1. What factors are included in the Beer’s law expression for determining how much light passes through a liquid solution?
 | [Type your answer here] |
|  | 1. How would your test results be affected if you left fingerprints on the sides of the cuvette in line with the light path of the Spectrometer?
 | [Type your answer here] |
|  | 1. Could this method of testing be used to determine the concentration of a NaCl solution? Explain.
 | [Type your answer here] |
|  | 5. What is the purpose of determining Lambda (𝛌), wavelength max to conduct the experiment? | [Type your answer here] |