**Forensics Lab Report:**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Partner Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class Period \_\_\_\_\_\_\_\_\_\_\_

Title: Thin Layer Chromatography

Purpose: to determine the color and Rf values for each known dye, then determine which of the known dyes are in the different unknowns by matching the color and Rf values.

Data Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of Dye | Distance traveled | Distance Solvent traveled | Rf value | Color |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Observation Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of Dye | Distance traveled | Distance Solvent traveled | Rf value | Color | Matches  Known Dye |
| Unknown 1 |  |  |  |  |  |
| Dye 1 closest to origin |  |  |  |  |  |
| Dye 2 closest to origin |  |  |  |  |  |
| Unknown 2 |  |  |  |  |  |
| Dye 1 closest to origin |  |  |  |  |  |
| Dye 2 closest to origin |  |  |  |  |  |
| Unknown 3 |  |  |  |  |  |
| Dye 1 closest to origin |  |  |  |  |  |
| Dye 2 closest to origin |  |  |  |  |  |

Conclusion: (this should tell the whole story of the experiment and results without the procedure

1. Restate the Purpose statement
2. Example of conclusion about unknowns:

Unknown \_\_ contained the dye,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and the dye, \_\_\_\_\_\_\_\_\_\_\_\_\_\_,. The evidence for this conclusion was that \_\_\_\_\_\_\_\_\_\_\_\_\_\_had an Rf of \_\_\_\_\_which was close to the value of the known dye, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_which had an Rf of \_\_\_\_\_\_\_\_\_. The unknown \_\_\_\_\_\_also matched with the same color \_\_\_\_\_\_\_\_\_\_\_\_\_.

Unknown \_\_ contained the dye,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and the dye, \_\_\_\_\_\_\_\_\_\_\_\_\_\_,. The evidence for this conclusion was that \_\_\_\_\_\_\_\_\_\_\_\_\_\_had an Rf of \_\_\_\_\_which was close to the value of the known dye, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_which had an Rf of \_\_\_\_\_\_\_\_\_. The unknown \_\_\_\_\_\_also matched with the same color \_\_\_\_\_\_\_\_\_\_\_\_\_.

Unknown \_\_ contained the dye,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and the dye, \_\_\_\_\_\_\_\_\_\_\_\_\_\_,. The evidence for this conclusion was that \_\_\_\_\_\_\_\_\_\_\_\_\_\_had an Rf of \_\_\_\_\_which was close to the value of the known dye, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_which had an Rf of \_\_\_\_\_\_\_\_\_. The unknown \_\_\_\_\_\_also matched with the same color \_\_\_\_\_\_\_\_\_\_\_\_\_.

III.

How would you change the experiment to improve it.