Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block:\_\_\_\_ **Limiting Lab**

Pb(NO3)2 (aq) + 2KI (aq) 🡺 2KNO3 (aq) + PbI2 (s)

The reaction for the lab is:

**Procedure:**

1. Measure about 1 gram of Pb(NO3)2 (s) into a 100 mL beaker. Record the exact measured mass.
2. Measure about 1.5 grams of KI(s) into a 250 mL beaker. Record the exact measured mass.
3. Add enough water to each beaker to completely dissolve the solid. Stir
4. Pour Contents of small beaker into the large beaker. Stir
5. Write your name **in pencil** on back of the filter paper.
6. Record the mass of filter paper.
7. Place filter paper in funnel.
8. Place funnel on top of flask.
9. Pour precipitate and water mixture on top/into the filter paper lined funnel.
10. Place filter paper with precipitate on blue tray
11. Clean up.

**Data:** organize all data into a table. Be sure to include units.

**Calculations:**

1. Calculate the theoretical yield of PbI­2 produced in grams. (use either B-C-A table or dimensional analysis) show your work.
2. On day 2, calculate the actual yield of PbI2 produced in lab. ( must use data from data table)

% yield = (actual /theoretical)\* 100

1. On day 2, calculate the percent yield of PbI2.

**Conclusion:** Answer one of the following:

* If the percent yield is low, what could be the possible causes?
* If the percent yield is high, what could be the possible causes?