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| EXP. NUMBER | EXPERIMENT/SUBJECT Properties of Water Exploration | DATE * |
| NAME * | LAB PARTNER * | LOCKER/DESK NO. COURSE & SECTION NO. * |

Purpose: (Copy off Lab assignment)

Hypothesis:

Independent Variable:

Dependent variable:

Control:

Constants: (At least three)

Methods

Purposes + Notes

1. Obtain a dry penny.
2. Using a dropper, drop DI water onto the penny. Count drops.
3. Record how many drops you were able to place on the penny before it overflowed. Record.
4. Dry the penny & repeat for a total of five trials.
5. Predict the # of drops of rubbing alcohol the penny will hold →
6. Repeat steps 1-4 with the same penny & dropper, but with rubbing alcohol.

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Methods, con't

Purposes + Notes

7. Predict the # of drops of salt water the penny will hold →
8. Repeat steps 1-4 with the same penny and dropper, but with salt water.
9. Predict the # of drops of DI water the penny will hold if a small amount of dish soap has been spread on its surface. →
10. Using your finger, spread one small drop of soap on the surface of a dry penny.
11. Repeat steps 1-4 with the same penny and dropper. Be sure to reapply a drop of soap between trials and use DI water.

Results: Table 1 - Drops of fluid contained on a penny

| Trial | DI water dry penny | Rubbing Alc. dry penny | Salt water dry penny | DI water soapy penny |
|-------|--------------------|------------------------|----------------------|----------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

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Data Analysis:

Table 2: Calculations

| Calculation | DI water dry penny | Rubbing Alc. dry penny | Salt water dry penny | DI water Stapy penny |
|------------------|-----------------------|---------------------------|-------------------------|-------------------------|
| Mean | | | | |
| Stand. Deviation | | | | |
| Stand. Error | | | | |
| 2 · SEM | | | | |
| Mean + 2SEM | | | | |
| Mean - 2SEM | | | | |

Formulas and Sample Calculations for table 2:
 (exception - you do not need to show a sample calculation for standard deviation).

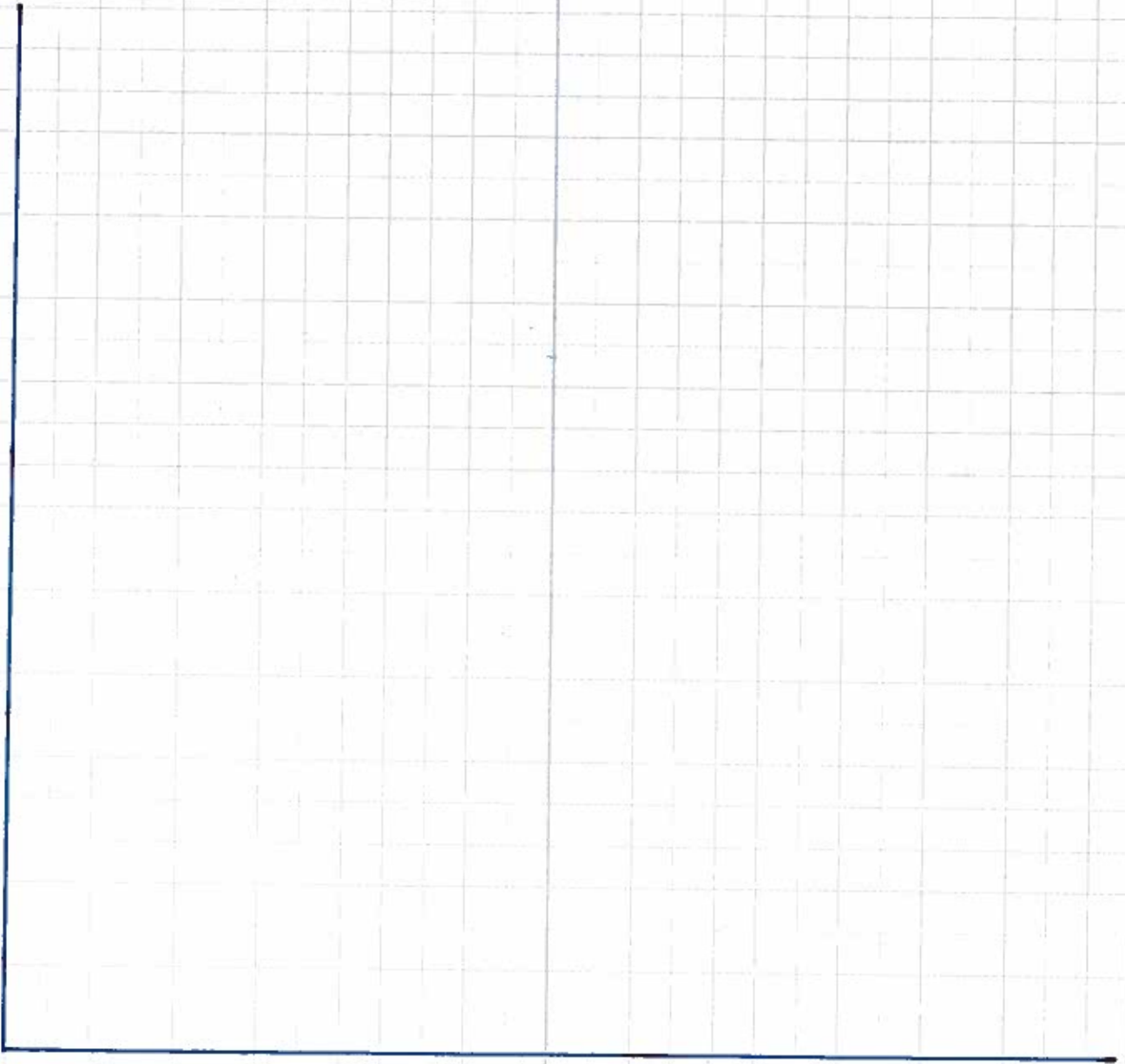
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Data Analysis, cont:

Graph:

Title:



This graph shows... (clearly describe the observed pattern)

| | | | |
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Data Analysis, con't:

T-test analysis for (choose a pair of fluids) _____

Purpose of analysis:

Statistical hypotheses: H_0 :

H_A :

Test statistic:

P-value:

Conclusion of statistical test:

Conclusion statement for the lab:

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