SOLUTIONS LAB

As a pair, you’ll be making a salt solution. Then as a class, you’ll be analyzing the relationship between molarity and density.

**PRELAB:** Calculate the mass of sodium chloride required for your solution. Your mass should be calculated to the *hundredths place* to match the precision of the balances. Then, write out the steps for making a solution. Once your work has been checked by Dr. James, you may begin the lab.

Solution: _______ M NaCl
Volume: 0.100 L
Mass of NaCl: ______________

Steps:

**LAB:** Fill out the table with correct significant digits and units.

1. Record the mass of your dry 100. mL volumetric flask.
2. Make solution.
3. Record final mass (complete solution + flask).
4. Rinse out the solution in the sink with lots of water. Try to dry the flask off as much as possible and let the excess water drip out.
5. Clean your area and replace all materials back where they belong.

Do the rest at your desk after you’ve cleaned up:

6. Calculate and record the mass of the solution (subtract the mass of the flask).
7. **Density = Mass ÷ Volume.** Calculate and record the density.
8. Turn in this completed lab sheet for grading.
<table>
<thead>
<tr>
<th>Solution : __________________________</th>
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</thead>
<tbody>
<tr>
<td>Mass of empty volumetric flask</td>
</tr>
<tr>
<td>Mass of NaCl</td>
</tr>
<tr>
<td>Combined mass: solution in flask</td>
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<tr>
<td>Mass of solution only</td>
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<tr>
<td><strong>Density of solution</strong></td>
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