**DISSOLVED OXYGEN**

Find the mean, or average, of your results.

Unit of measurement: mg/L

<table>
<thead>
<tr>
<th>Do your three tests finding dissolved oxygen (mg/L).</th>
<th>Take your three results and find the mean.</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Bottles and test tube" /></td>
<td>Example 9.1, 8.9, 8.7</td>
</tr>
<tr>
<td>To find the mean, first add up the three results.</td>
<td>and find the mean.</td>
</tr>
<tr>
<td>Example 9.1 + 8.9 + 8.7 = 26.7</td>
<td></td>
</tr>
<tr>
<td>8.9 would be your mean, or average.</td>
<td>Then, divide the total by 3 (the number of tests you completed).</td>
</tr>
<tr>
<td></td>
<td>Example 26.7 ÷ 3 = 8.9</td>
</tr>
<tr>
<td>Practice: find the mean</td>
<td>Formula:</td>
</tr>
</tbody>
</table>
| 1. 9, 7.5, 8.2                                      | \[
| \text{Total} \quad \begin{array}{c} + \quad + \quad + \end{array} = \quad \text{Total} \\
| \text{Test #1} \quad \text{Test #2} \quad \text{Test #3} \quad \text{Total} \\
| \text{Total} \quad \div 3 = \quad \text{Mean} \\
| 2. 6.7, 7.8, 6.9                                   |                                           |
| 3. 9.1, 8.7, 9.0                                   |                                           |
# Turbidity

Calculate Jackson Turbidity Units, or JTU.

Unit of measurement: JTU

---

<table>
<thead>
<tr>
<th>Fill each dropper to the 0.5 mL line.</th>
<th>Count the number of times you filled the dropper to the line and emptied it into the beaker.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image of dropper]</td>
<td>[Images of beakers being filled]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multiply the number of droppers by 5.</th>
<th>15 JTU is your answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: (3\frac{1}{2} \times 5 = 15)</td>
<td></td>
</tr>
</tbody>
</table>

**Formula:**

\[
\frac{\text{# of droppers}}{x 5} = \frac{\text{JTU}}{} 
\]

**Practice: Find JTU**

1. 5 droppers
2. 2 droppers
3. 4 droppers
**Fecal Coliform**

Find the highest number.

Unit of measurement: FC/100ml

<table>
<thead>
<tr>
<th>Look at your three results</th>
<th>Which number is the highest?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>Example</td>
</tr>
<tr>
<td>42 47 85</td>
<td>85</td>
</tr>
</tbody>
</table>

Practice: find the highest number

1. 58, 47, 56

2. 69, 71, 73

3. 80, 80, 61
**Nitrates**

Find the mean, or average.

*Unit of measurement: mg/L*

<table>
<thead>
<tr>
<th>Add up your three results.</th>
<th>Divide your total by 3 (or the number of tests you completed.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>Example</td>
</tr>
<tr>
<td>$0.9 + 0.7 + 0.9 = 2.5$</td>
<td>$2.5 \div 3 = 0.8\bar{3}$</td>
</tr>
</tbody>
</table>

$0.8\bar{3}$ is your mean or average.

Formula:

\[
\frac{\text{Test } #1 + \text{Test } #2 + \text{Test } #3}{\text{Total}} \div 3 = \text{Mean}
\]

Practice: find the mean

1. $0.8, 0.5, 0.7$
2. $0.1, 0.2, 0.3$
3. $0.8, 0.8, 0.75$
pH

Find the mode, or most common number.

Unit of measurement: pH units

Record your three results.

<table>
<thead>
<tr>
<th>Test #1</th>
<th>Test #2</th>
<th>Test #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Which is the most common number?

Example

6

Practice: Find the mode

1. 6, 7, 7
2. 5, 7, 5
3. 6, 8, 8
**Answer Key**

**Dissolved Oxygen**
1. 8.1 mg/L
2. 7.1 mg/L
3. 8.9 mg/L

**Turbidity**
1. 25 STU
2. 10 STU
3. 20 STU

**Fecal Coliform**
1. 58 FC/100 mL
2. 73 FC/100 mL
3. 80 FC/100 mL

**Nitrates**
1. 0.6 mg/L
2. 0.2 mg/L
3. 0.8 mg/L

**pH**
1. 7 pH units
2. 5 pH units
3. 8 pH units