## Finding the Mean (or Average) - Set 1

**Instructions:** Find the Mean (or Average) of each set of numbers below. (Note: the numbers are inside curley-brackets { } to show that they form a set.)

<table>
<thead>
<tr>
<th>Number Sets</th>
<th>Instructions</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>{2, 3, 7}</code></td>
<td>First add all the numbers. Then divide the total by how many numbers were added.</td>
<td>2 + 3 + 7 = 12, ( \frac{12}{3} = 4 )</td>
</tr>
<tr>
<td><code>{6, 1, 2}</code></td>
<td></td>
<td>6 + 1 + 2 = 9, ( \frac{9}{3} = 3 )</td>
</tr>
<tr>
<td><code>{8, 10}</code></td>
<td></td>
<td>8 + 10 = 18, ( \frac{18}{2} = 9 )</td>
</tr>
<tr>
<td><code>{2, 4, 6, 8}</code></td>
<td></td>
<td>2 + 4 + 6 + 8 = 20, ( \frac{20}{4} = 5 )</td>
</tr>
<tr>
<td><code>{5, 5, 8}</code></td>
<td></td>
<td>5 + 5 + 8 = 18, ( \frac{18}{3} = 6 )</td>
</tr>
<tr>
<td><code>{20, 12}</code></td>
<td></td>
<td>20 + 12 = 32, ( \frac{32}{2} = 16 )</td>
</tr>
<tr>
<td><code>{0, 1, 5, 10}</code></td>
<td></td>
<td>0 + 1 + 5 + 10 = 16, ( \frac{16}{4} = 4 )</td>
</tr>
<tr>
<td><code>{1, 1, 2, 3, 8}</code></td>
<td></td>
<td>1 + 1 + 2 + 3 + 8 = 15, ( \frac{15}{5} = 3 )</td>
</tr>
</tbody>
</table>
Finding the Mean (or Average) - Set 2

Instructions: Find the Mean (or Average) of each set of numbers below. You can use a calculator to do the addition and division for these problems if you want to.

1. \(\{5, 0, 4, 10\}\)
   \[
   \frac{5 + 0 + 4 + 10}{4} = \frac{19}{4} = 4.75
   \]

2. \(\{1, 2\}\)
   \[
   \frac{1 + 2}{2} = \frac{3}{2} = 1.5
   \]

3. \(\{15, 8, 19\}\)
   \[
   \frac{15 + 8 + 19}{3} = \frac{42}{3} = 14
   \]

4. \(\{5, 7, 7, 10\}\)
   \[
   \frac{5 + 7 + 7 + 10}{4} = \frac{39}{4} = 9.75
   \]

5. \(\{14, 15\}\)
   \[
   \frac{14 + 15}{2} = \frac{29}{2} = 14.5
   \]

6. \(\{3, 12, 9, 16, 10\}\)
   \[
   \frac{3 + 12 + 9 + 16 + 10}{5} = \frac{50}{5} = 10
   \]

7. \(\{9, 4, 11, 14\}\)
   \[
   \frac{9 + 4 + 11 + 14}{4} = \frac{38}{4} = 9.5
   \]

8. \(\{2, 20\}\)
   \[
   \frac{2 + 20}{2} = \frac{22}{2} = 11
   \]
Finding the Median - Set 1

Instructions: Find the Median of each set below. Remember, the members must be in order and if there’s an even number of members, the Median is the Mean of the middle two members.

1. \{5, 1, 0, 3, 8\} odd
   - First make sure the set is in order.
   - \{0, 1, 3, 5, 8\}
   - Then choose the middle member.

2. \{6, 2, 7, 1\} even
   - First make sure the set is in order.
   - \{1, 2, 6, 7\}
   - The Median is the Mean of the middle two.
   - median = \(\frac{2 + 6}{2} = 4\)

3. \{12, 9, 10\}
   - \{9, 10, 12\}
   - median

4. \{6, 1, 10, 7, 4, 2\}
   - \{1, 2, 4, 6, 7, 10\}
   - median

5. \{1, 2, 3, 4, 5, 6, 7\}
   - \{1, 2, 3, 4\} 5, 6, 7
   - median

6. \{1, 2, 3, 4, 5, 6\}
   - \{1, 2, 3, 4\} 5, 6
   - median

7. \{4, 0, 2, 0, 2, 1, 3\}
   - \{0, 0, 1, 2\} 2, 3, 4
   - median

8. \{0, 1, 2, 2, 5, 8\}
   - \{0, 1, 2, 2\} 5, 8
   - median
Finding the Median - Set 2

Instructions: Find the Median of each set below. Remember, the members must be in order and if there’s an even number of members, the Median is the Mean of the middle two members.

1. \{7, 0, 2.5, 4, 15\}
   First make sure the set is in order.
   \{0, 2.5, 4, 7, 15\}
   Then choose the middle member.
   \text{Median} = 7

2. \{25, 22, 21, 23, 24\}
   \{21, 22, 23, 24, 25\}
   \text{Median}

3. \{30, 31\}
   \{30, 31\}
   \text{Median} = \frac{30 + 31}{2} = 30.5

4. \{80, 20, 70, 30\}
   \{20, 30, 70, 80\}
   \text{Median} = \frac{30 + 70}{2} = 50

5. \{1, 1, 4, 5, 2, 1, 2, 3, 5\}
   \{1, 1, 1, 2, 3, 4, 5, 5\}
   \text{Median}

6. \{20, 500, 100\}
   \{20, 100, 500\}
   \text{Median}

7. \{2.5, 1.5, 6.0, 1.1\}
   \{1.1, 1.5, 2.5, 6.0\}
   \text{Median} = \frac{1.5 + 2.5}{2} = 2

8. \{0, 1, 0\}
   \{0, 0, 1\}
   \text{Median}
Finding the Mode

Instructions: Find the Mode of each set below. Remember, there may not be a Mode, or there may be more than one Mode. (Note: You can re-order the sets to make finding the Mode easier.)

1. \{5, 2, 1, 5, 7, 3, 4, 6\}  
   \{1, 2, 3, 4, 5, 5, 6, 7\}  
   The Mode is 5 because it is repeated most often.

2. \{8, 0, 0, 2, 4, 8, 10\}  
   \{0, 0, 2, 4, 8, 8, 10\}  
   Both 0 and 8 are Modes

3. \{5, 1, 2, 5, 1, 5, 5\}  
   \{1, 1, 2, 5, 5, 5, 5\}  
   The Mode is 5

4. \{15, 5, 30, 60, 25\}  
   \{5, 15, 25, 30, 60\}  
   No Mode

5. \{0, 1, 5, 1, 8, 3, 3, 9\}  
   \{0, 1, 3, 3, 5, 8, 9\}  
   Both 1 and 3 are Modes

6. \{0, 0, 1, 1, 2, 2, 3, 3\}  
   No Mode
   (Because the Mode is not just a repeated number. It’s the number that’s repeated most often.)

7. \{12, 10, 15, 12, 18\}  
   \{10, 12, 12, 15, 18\}  
   The Mode is 12

8. \{7, 9, 7, 4, 4, 3, 3, 4\}  
   \{3, 3, 4, 4, 4, 7, 7, 9\}  
   The Mode is 4

9. \{1, 0, 1, 0, 1, 0\}  
   \{0, 0, 0, 1, 1, 1\}  
   No Mode

10. \{0, 1, 2, 3, 3, 3, 4, 4\}  
    \{0, 1, 2, 3, 3, 3, 4, 4, 4\}  
    Both 3 and 4 are Modes
Instructions: Try to remember which is which! :) 

1. Find the Median of this set: 
   \{4, 10, 19, 20, 30, 42, 50\}  
   The Median is 20

2. Find the Mean of this set: 
   \{20, 15, 30, 35\}  
   \(20 + 15 + 30 + 35 = 100\)  
   \(100 \div 4 = 25\)

3. Find the Mode of this set: 
   \{7, 8, 8, 9, 8, 9, 7, 6\}  
   \{6, 7, 7, 8, 8, 9, 9\}  
   The Mode is 8

4. Find the Mean of this set: 
   \{100, 200\}  
   \(100 + 200 = 300\)  
   \(300 \div 2 = 150\)

5. Find the Median of this set: 
   \{5, 1.7, 22, 9, 30.5\}  
   \{1.7, 5, 9, 22, 30.5\}  
   The Median is 9

6. Find the Mode of this set: 
   \{6, 3, 4, 2, 8, 7, 5, 9, 2, 4\}  
   \{2, 2, 3, 4, 4\}  
   Both 2 and 4 are Modes

7. Find the Mean of this set: 
   \{0, 0, 1, 5, 9\}  
   \(0 + 0 + 1 + 5 + 9 = 15\)  
   \(15 \div 5 = 3\)

8. Find the Median of this set: 
   \{2, 4, 8, 10\}  
   Median = \(\frac{4 + 8}{2} = 6\)

9. Find the Mode of this set: 
   \{12, 5, 7, 3, 0, 1, 9\}  
   No Mode

10. Find the Mean of this set: 
    \{1.5, 5.0, 2.5\}  
    \(1.5 + 5.0 + 2.5 = 9\)  
    \(9 \div 3 = 3\)
### Mean, Median and Mode Word Problems

**Instructions:** Find the Mean, Median and Mode in each problem below. Please use a calculator for the computations.

1. A musician practiced piano for five days and recorded the time spent each day. Find the Mean, Median and Mode.

<table>
<thead>
<tr>
<th>Practice Time (min.)</th>
<th>30</th>
<th>15</th>
<th>30</th>
<th>20</th>
<th>45</th>
</tr>
</thead>
</table>

- **Mean:** 28 min
  - \(
  \frac{30 + 15 + 30 + 20 + 45}{5} = \frac{140}{5} = 28
  \)

- **Median:** 30 min
  - Ordered times: 15, 20, 30, 30, 45

- **Mode:** 30 min

2. During a seven day winter storm, snowfall levels were recorded in this table. Find the mean, median and mode.

<table>
<thead>
<tr>
<th>Snow Fall (in.)</th>
<th>2.5</th>
<th>1.2</th>
<th>0.0</th>
<th>3.9</th>
<th>1.0</th>
<th>2.5</th>
<th>1.5</th>
</tr>
</thead>
</table>

- **Mean:** 1.8 in.
  - \(
  \frac{2.5 + 1.2 + 0.0 + 3.9 + 1.0 + 2.5 + 1.5}{7} = \frac{12.6}{7} = 1.8
  \)

- **Median:** 1.5 in.
  - Ordered snowfall: 0.0, 1.0, 1.2, 1.5, 2.5, 2.5, 3.9

- **Mode:** 2.5 in

3. A Track and Field athlete was practicing Long Jump and recorded the following scores. Find the Mean, Median and Mode of the distances jumped.

<table>
<thead>
<tr>
<th>Distances Jumped (m)</th>
<th>7.10</th>
<th>6.85</th>
<th>7.25</th>
<th>7.35</th>
<th>6.90</th>
<th>6.85</th>
</tr>
</thead>
</table>

- **Mean:** 7.05 m
  - \(
  \frac{7.10 + 6.85 + 7.25 + 7.35 + 6.90 + 6.85}{6} = \frac{42.3}{6} = 7.05
  \)

- **Median:** 7.00 m
  - Ordered distances: 6.85, 6.85, 6.90, 7.10, 7.25, 7.35
  - \(
  \frac{6.90 + 7.10}{2} = \frac{14.00}{2} = 7.00
  \)

- **Mode:** 6.85 m

4. A gamer bought four video games and listed their prices in the table below. Find the Mean, Median and Mode of the price list.

|--------------------|--------|-------|--------|-------|

- **Mean:** $11.99
  - \(
  \frac{14.99 + 1.99 + 24.99 + 5.99}{4} = \frac{47.96}{4} = 11.99
  \)

- **Median:** $10.49
  - \(
  \frac{5.99 + 14.99}{2} = \frac{20.98}{2} = 10.49
  \)

- **Mode:** none