Algebra: Equations With Rational Numbers

Solve each equation.

<table>
<thead>
<tr>
<th>Step 1: Remember</th>
<th>Step 2: Use the</th>
<th>Step 3: Simplify the</th>
</tr>
</thead>
<tbody>
<tr>
<td>the inverse operation.</td>
<td>the inverse operation on both sides of the equal sign.</td>
<td>the equation.</td>
</tr>
<tr>
<td>The inverse of subtraction is addition.</td>
<td>$d - 7 + 7 = -11 + 7$</td>
<td>$-7 + 7 = 0$</td>
</tr>
<tr>
<td>The inverse of multiplication is division.</td>
<td>$\frac{3}{4}f \div \frac{3}{4} = 6 \div \frac{3}{4}$</td>
<td>$-11 + 7 = -4$</td>
</tr>
<tr>
<td>The inverse of division is multiplication.</td>
<td>$\frac{t}{4} = 2$</td>
<td>$d + 0 = -4$</td>
</tr>
</tbody>
</table>

Solve each equation.

1. $w + 87 = 102$

2. $7t = 21$

3. $s - 5 = 5$

4. $x \div 2 = 40$

5. $t + 13 = 43$

6. $-4k = -96$

7. $b - 6.2 = 17.5$

8. $\frac{-2}{3}f = 10$

9. $15.6 + g = 9.6$

10. $b \div 10 = -4.7$

11. $4.1w = 12.3$

12. $q - 5\frac{3}{8} = 6\frac{2}{3}$