

Name: \_\_\_\_\_

Date: \_\_\_\_\_

<b>Learning Goal 6.1</b>	I can solve equations.
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**Example** Solve the following equations.

B  
E  
D  
M  
A  
S

$$\begin{aligned}
 9a - 2 &= 5a + 10 \\
 -5a &\quad -5a \\
 \hline
 4a - 2 &= 10 \\
 +2 &\quad +2 \\
 \hline
 4a &= 12 \\
 \frac{4a}{4} &= \frac{12}{4} \\
 a &= 3
 \end{aligned}$$

$$\begin{aligned}
 5(x - 3) &= 6x + 11 \\
 +5x - 15 &= 6x + 11 \\
 -5x &\quad -5x \\
 \hline
 -15 &= x + 11 \\
 -11 &\quad -11 \\
 \hline
 -26 &= x \\
 x &= -26
 \end{aligned}$$

$$\begin{aligned}
 -3m + 7 &= 2m - 13 \\
 -2m &\quad -2m \\
 \hline
 -5m + 7 &= -13 \\
 -7 &\quad -7 \\
 \hline
 -5m &= -20 \\
 \frac{-5m}{-5} &= \frac{-20}{-5} \\
 m &= 4
 \end{aligned}$$

$$\begin{aligned}
 0.5(t - 54) &= 0.25(t - 24) \\
 \frac{1}{2}(t - 54) &= \frac{1}{4}(t - 24) \\
 4 \times \left( \frac{1}{2}t - 27 = \frac{1}{4}t - 6 \right) \\
 \hline
 2t - 108 &= t - 24 \\
 -t &\quad -t \\
 \hline
 t - 108 &= -24 \\
 +108 &\quad +108 \\
 \hline
 t &= 84
 \end{aligned}$$

$$\begin{aligned}
 12x \left( \frac{k-1}{6} = \frac{k-3}{4} \right) &\quad 4 \quad 8 \quad 12 \\
 &\quad 6 \quad 12 \\
 2(k-1) &= 3(k-3) \\
 +2k - 2 &= 3k - 9 \\
 -2k &\quad -2k \\
 \hline
 -2 &= k - 9 \\
 +9 &\quad +9 \\
 \hline
 7 &= k \\
 k &= 7
 \end{aligned}$$

$$\begin{aligned}
 17 &= 5 - \frac{60}{b}, \quad b \neq 0 \\
 -5 &\quad -5 \\
 b \times 12 &= -\frac{60}{b} \times b \\
 \hline
 12b &= -60 \\
 \frac{12b}{12} &= \frac{-60}{12} \\
 b &= -5
 \end{aligned}$$