

Solve each equation and check your solution.

<p>1. $-10 + 7d + 3 - d = 29$</p> $\begin{array}{r} 6d - 7 = 29 \\ +7 \quad +7 \\ \hline 6d = 36 \\ \frac{6d}{6} = \frac{36}{6} \\ \boxed{d = 6} \end{array}$	<p>Check</p> $\begin{aligned} -10 + 7d + 3 - d &= 29 \\ -10 + 7(6) + 3 - 6 &= 29 \\ -10 + 42 + 3 - 6 &= 29 \\ 32 + 3 - 6 &= 29 \\ 35 - 6 &= 29 \\ 29 &= 29 \checkmark \end{aligned}$
<p>2. $4n + 10 - (n - 20) = 60$</p> $\begin{array}{r} 4n + 10 - n + 20 = 60 \\ 3n + 30 = 60 \\ -30 \quad -30 \\ \hline 3n = 30 \\ \frac{3n}{3} = \frac{30}{3} \\ \boxed{n = 10} \end{array}$	<p>Check</p> $\begin{aligned} 4n + 10 - (n - 20) &= 60 \\ 4(10) + 10 - (10 - 20) &= 60 \\ 40 + 10 - (-10) &= 60 \\ 50 - (-10) &= 60 \\ 50 + 10 &= 60 \\ 60 &= 60 \checkmark \end{aligned}$
<p>3. $-3(2x - 7) + x = 31$</p> $\begin{array}{r} -6x + 21 + x = 31 \\ -5x + 21 = 31 \\ -21 \quad -21 \\ \hline -5x = 10 \\ \frac{-5x}{-5} = \frac{10}{-5} \\ \boxed{x = -2} \end{array}$	<p>Check</p> $\begin{aligned} -3(2(-2) - 7) + (-2) &= 31 \\ -3(-4 - 7) + (-2) &= 31 \\ -3(-11) + (-2) &= 31 \\ 33 + (-2) &= 31 \\ 31 &= 31 \checkmark \end{aligned}$
<p>4. $5(x - 2) + 34 + 3x = -32$</p> $\begin{array}{r} 5x - 10 + 34 + 3x = -32 \\ 8x + 24 = -32 \\ -24 \quad -24 \\ \hline 8x = -56 \\ \frac{8x}{8} = \frac{-56}{8} \\ \boxed{x = -7} \end{array}$	<p>Check</p> $\begin{aligned} 5(x - 2) + 34 + 3x &= -32 \\ 5(-7 - 2) + 34 + 3(-7) &= -32 \\ 5(-9) + 34 + 3(-7) &= -32 \\ -45 + 34 + (-21) &= -32 \\ -11 + (-21) &= -32 \\ -32 &= -32 \checkmark \end{aligned}$