

$$\begin{aligned}
 9) \quad & \widehat{3(1+x)} = \widehat{-3(x+1)} \\
 & 3 + 3x = -3x - 3 \\
 & \quad + 3x \quad + 3x \\
 \hline
 & 3 + 6x = -3 \\
 & -3 \quad -3 \\
 \hline
 & 6x = -6 \\
 & \boxed{x = -1}
 \end{aligned}$$

$$\begin{aligned}
 10) \quad & \widehat{2(m+2)} = \widehat{2(2m+2)} \\
 & 2m + 4 = 4m + 4 \\
 & -2m \quad -2m \\
 \hline
 & 4 = 2m + 4 \\
 & -4 \quad -4 \\
 \hline
 & 0 = 2m \\
 & \boxed{0 = m}
 \end{aligned}$$

$$\begin{aligned}
 11) \quad & \widehat{3n - 3n} = \widehat{-4(2 - 5n)} - \widehat{5(4n - 4)} \\
 & 0 = -8 + 20n - 20n + 20 \\
 & 0 = 12 \\
 & \text{no solution}
 \end{aligned}$$

$$\begin{aligned}
 12) \quad & \widehat{3(1+5v)} - 4 = \widehat{-4(-2v-5)} \\
 & 3 + 15v - 4 = 8v + 20 \\
 & 15v - 1 = 8v + 20 \\
 & -8v \quad -8v \\
 \hline
 & 7v - 1 = 20 \\
 & 7v = 21 \\
 & \boxed{v = 3}
 \end{aligned}$$

$$\begin{aligned}
 13) \quad & \widehat{-6(2n-4)} = \widehat{-3(n+4)} \\
 & -12n + 24 = -3n - 12 \\
 & +12n \quad +12n \\
 \hline
 & 24 = 9n - 12 \\
 & +12 \quad +12 \\
 \hline
 & 36 = 9n \\
 & \boxed{4 = n}
 \end{aligned}$$

$$\begin{aligned}
 14) \quad & \widehat{-6(3x-7)} = \widehat{-2-4(4x-7)} \\
 & -18x + 42 = -2 - 16x + 28 \\
 & -18x + 42 = -16x + 26 \\
 & +18x \quad +18x \\
 \hline
 & 42 = 2x + 26 \\
 & -26 \quad -26 \\
 \hline
 & 16 = 2x \\
 & \boxed{8 = x}
 \end{aligned}$$

$$\begin{aligned}
 15) \quad & \widehat{-2(a-3)} = \widehat{-4+2a} \\
 & -2a + 6 = -4 + 2a \\
 & +2a \quad +2a \\
 \hline
 & 6 = -4 \\
 & \text{no solution!}
 \end{aligned}$$

$$\begin{aligned}
 16) \quad & \widehat{4n - 4(1-n)} = \widehat{-4 + 8n} \\
 & 4n - 4 + 4n = -4 + 8n \\
 & 8n - 4 = -4 + 8n \\
 & -8n \quad -8n \\
 \hline
 & -4 = -4 \quad \text{Identity} \\
 & \text{(Infinite \# Solutions)}
 \end{aligned}$$

Solve each equation.

1) $-5 + 2m = -4m - 2m - 13$

$$\begin{array}{r} -5 + 2m = -6m - 13 \\ +6m \quad +6m \\ \hline -5 + 8m = -13 \\ +5 \quad +5 \\ \hline 8m = -8 \\ \boxed{m = -1} \end{array}$$

2) $-9 + n = n - 1$

$$\begin{array}{r} -9 + n = n - 1 \\ -n \quad -n \\ \hline -9 = -1 \end{array}$$

NO SOLUTIONS!

3) $x + 17 = -50 + x + 34 + 33$

$$\begin{array}{r} x + 17 = x + 17 \\ \hline \end{array}$$

Identity
OR
Infinitely many
Solutions

4) $74 - 3n = n - 22$

$$\begin{array}{r} 74 - 3n = n - 22 \\ +3n \quad +3n \\ \hline 74 = 4n - 22 \\ +22 \quad +22 \\ \hline 96 = 4n \\ \boxed{24 = n} \end{array}$$

5) $n - 1.2 = -1.8n + 3.84$

$$\begin{array}{r} n - 1.2 = -1.8n + 3.84 \\ +1.8n \quad +1.8n \\ \hline 2.8n - 1.2 = 3.84 \\ +1.2 \quad +1.2 \\ \hline 2.8n = 5.04 \\ \boxed{n = 1.8} \end{array}$$

6) $a + 0.8 = -0.8a + 3.86$

$$\begin{array}{r} a + 0.8 = -0.8a + 3.86 \\ +0.8a \quad +0.8a \\ \hline 1.8a + 0.8 = 3.86 \\ -0.8 \quad -0.8 \\ \hline 1.8a = 3.06 \\ \boxed{a = 1.7} \end{array}$$

7) $-10(-3v - 30) = 16v - 64$

$$\begin{array}{r} 30v + 300 = 16v - 64 \\ -16v \quad -16v \\ \hline 14v + 300 = -64 \\ 14v = -364 \\ \boxed{v = -26} \end{array}$$

8) $-111 + 51p = -35(12p + 57)$

$$\begin{array}{r} -111 + 51p = -426p - 1995 \\ +477p \quad +477p \\ \hline -111 + 477p = -1995 \\ +111 \quad +111 \\ \hline 477p = -1884 \\ \frac{477p}{471} = \frac{-1884}{471} \\ \boxed{p = -4} \end{array}$$