

$$\begin{array}{r} 5x - 1 = x + 15 \\ -x \quad -x \\ \hline 4x - 1 = 15 \\ +1 \quad +1 \\ \hline 4x = 16 \\ \frac{4x}{4} = \frac{16}{4} \\ \hline x = 4 \end{array}$$

$$\begin{array}{r} 4p + 2 = 3p - 7 \\ -3p \quad -3p \\ \hline p + 2 = -7 \\ -2 \quad -2 \\ \hline p = -9 \end{array}$$

$$\begin{array}{r} 6m - 2 = 2m + 6 \\ -2m \quad -2m \\ \hline 4m - 2 = 6 \\ +2 \quad +2 \\ \hline 4m = 8 \\ \frac{4m}{4} = \frac{8}{4} \\ \hline m = 2 \end{array}$$

$$(21) \quad 3(q-5) = 2(q+5)$$

$$\begin{array}{r} 3q - 15 = 2q + 10 \\ -2q \quad -2q \\ \hline q - 15 = 10 \\ +15 \quad +15 \\ \hline q = 25 \end{array}$$

$$(22) \quad 8 - (3+b) = b - 9$$

$$\begin{array}{r} 8 - 3 - b = b - 9 \\ 5 - b = b - 9 \\ +b \quad +b \\ \hline 5 = 2b - 9 \\ +9 \quad +9 \\ \hline 14 = 2b \\ \frac{14}{2} = \frac{2b}{2} \\ \hline 7 = b \end{array}$$

$$(23) \quad 7(6-2a) = 5(-3a+1)$$

$$\begin{array}{r} 42 - 14a = -15a + 5 \\ +15a \quad +15a \\ \hline 42 + a = 5 \\ -42 \quad -42 \\ \hline a = -37 \end{array}$$

$$(24) \quad (g+4) - 3g = 1 + g$$

$$\begin{array}{r} g + 4 - 3g = 1 + g \\ 4 - 2g = 1 + g \\ +2g \quad +2g \\ \hline 4 = 1 + 3g \\ -1 \quad -1 \\ \hline 3 = 3g \\ \frac{3}{3} = \frac{3g}{3} \\ \hline 1 = g \end{array}$$

$$(25) \quad 2r - (5-r) = 13 + 2r$$

$$\begin{array}{r} 2r - 5 + r = 13 + 2r \\ 3r - 5 = 13 + 2r \\ -2r \quad -2r \\ \hline r - 5 = 13 \\ +5 \quad +5 \\ \hline r = 18 \end{array}$$

$$(26) \quad 5g + 4(-5 + 3g) = 1 - g$$

$$5g - 20 + 12g = 1 - g$$

$$\begin{array}{r|l} 17g - 20 & = 1 - g \\ + g & + g \\ \hline 18g - 20 & = 1 \\ + 20 & + 20 \\ \hline 18g & = 21 \\ \frac{18g}{18} & = \frac{21}{18} \\ g & = \frac{7}{6} \end{array}$$

$$(27) \quad 2(a-4) = 4a - (2a+4)$$

$$2a - 8 = 4a - 2a - 4$$

$$\begin{array}{r|l} 2a - 8 & = 2a - 4 \\ -2a & -2a \\ \hline -8 & = -4 \end{array}$$

No solution

$$(28) \quad 5y + 2 = \frac{1}{2}(10y + 4)$$

$$5y + 2 = 5y + 2$$

Identity
Infinite Solutions

$$(29) \quad K - 3K = 6K + 5 - 8K$$

$$\begin{array}{r|l} -2K & = -2K + 5 \\ +2K & +2K \\ \hline 0 & = 5 \end{array}$$

No solution

$$(30) \quad 2(2k-1) = 4(k-2)$$

$$\begin{array}{r|l} 4k - 2 & = 4k - 8 \\ -4k & -4k \\ \hline -2 & = -8 \end{array}$$

No solution

$$(31) \quad -6a + 3 = -3(2a-1)$$

$$-6a + 3 = -6a + 3$$

Identity
Infinite Solutions

$$(32) \quad 4 - d = -(d - 4)$$

$$4 - d = -d + 4$$

$$4 - d = 4 - d$$

Identity
Infinite Solutions