

Name

KEY

Date

Solving Review

$$1) d - 5.5 = -3.4$$

$$+5.5 \quad +5.5$$

$$d = 2.1$$

$$2) 15 = b + 8.7$$

$$-8.7 \quad -8.7$$

$$b = 6.3$$

$$3) \left(-2.5 = \frac{h}{8} \right) 8$$

$$h = -20$$

$$4) \frac{-0.3j}{-0.3} = \frac{2.4}{-0.3}$$

$$j = -8$$

$$5) 2x + 10 = 34$$

$$-10 \quad -10$$

$$\frac{2x}{2} = \frac{24}{2}$$

$$x = 12$$

$$6) -12 + \frac{j}{4} = 15$$

$$+12 \quad +12$$

$$4 \left(\frac{j}{4} = 27 \right)$$

$$j = 108$$

$$7) 7x + 9 = -12$$

$$-9 \quad -9$$

$$\frac{7x}{7} = \frac{-21}{7}$$

$$x = -3$$

$$8) -52 = -5b - 8b$$

$$\frac{-52}{-13} = \frac{-13b}{-13}$$

$$b = 4$$

$$9) 3 + 4x + 6 = 41$$

$$4x + 9 = 41$$

$$\begin{array}{r} -9 \quad -9 \\ \hline \end{array}$$

$$\frac{4x}{4} = \frac{32}{4}$$

$$\boxed{x = 8}$$

10)

$$6k - 1 + 6k = 47$$

$$12k - 1 = 47$$

$$\begin{array}{r} +1 \quad +1 \\ \hline \end{array}$$

$$\frac{12k}{12} = \frac{48}{12}$$

$$\boxed{k = 4}$$

11)

$$r + 11 + 7r = 67$$

$$8r + 11 = 67$$

$$\begin{array}{r} -11 \quad -11 \\ \hline \end{array}$$

$$\frac{8r}{8} = \frac{56}{8}$$

$$\boxed{r = 7}$$

12)

$$\frac{99}{3} = \frac{3(3x - 6)}{3}$$

$$33 = 3x - 6$$

$$\begin{array}{r} +6 \quad +6 \\ \hline \end{array}$$

$$\frac{39}{3} = \frac{3x}{3}$$

$$\boxed{x = 13}$$

13)

$$\frac{-8(6n + 6) = -300}{-8 \quad -5}$$

$$6n + 6 = 60$$

$$\begin{array}{r} -6 \quad -6 \\ \hline \end{array}$$

$$\frac{6n}{6} = \frac{54}{6}$$

$$\boxed{n = 9}$$

14)

$$87 = -3 + 5(b + 6)$$

$$\begin{array}{r} +3 \quad +3 \\ \hline \end{array}$$

$$\frac{90}{5} = \frac{5(b + 6)}{5}$$

$$18 = b + 6$$

$$\begin{array}{r} -6 \quad -6 \\ \hline \end{array}$$

$$\boxed{b = 12}$$

15)

$$4x = 3x + 5$$

$$\begin{array}{r} -3x \quad -3x \\ \hline \end{array}$$

$$\boxed{x = 5}$$

16)

$$15 - 2x = -7x$$

$$\begin{array}{r} +2x \quad +2x \\ \hline \end{array}$$

$$\frac{15}{-5} = \frac{-5x}{-5}$$

$$\boxed{x = -3}$$

$$17) \quad \begin{array}{r} 3s = s - 2 \\ -s \quad -s \\ \hline 2s = -2 \\ \frac{2s}{2} = \frac{-2}{2} \end{array}$$

$$\boxed{s = -1}$$

$$18) \quad \begin{array}{r} 5n - 9 = n + 31 \\ -n \quad -n \\ \hline 4n - 9 = 31 \\ \quad +9 \quad +9 \\ \hline 4n = 40 \\ \frac{4n}{4} = \frac{40}{4} \end{array}$$

$$\boxed{n = 10}$$

$$19) \quad \begin{array}{r} 9x + 9 = 9x - 12 \\ -9x \quad -9x \\ \hline 9 = -12 \text{ (false)} \end{array}$$

$\boxed{\text{no solution}}$

$$20) \quad \begin{array}{r} 2(x - 6) = 3x \\ 2x - 12 = 3x \\ -2x \quad -2x \\ \hline -12 = x \end{array}$$

$$\boxed{-12 = x}$$

$$21) \quad \begin{array}{r} 6r + 2(2 - r) = 4(2r - 1) \\ 6r + 4 - 2r = 8r - 4 \\ 4r + 4 = 8r - 4 \\ -4r \quad -4r \\ \hline 4 = 4r - 4 \\ +4 \quad +4 \\ \hline 8 = 4r \\ \frac{8}{4} = \frac{4r}{4} \rightarrow \boxed{r = 2} \end{array}$$

$$22) \quad \begin{array}{r} 2x - y = 4 \text{ (Solve for } y) \\ -2x \quad -2x \\ \hline -y = -2x + 4 \\ \frac{-y}{-1} = \frac{-2x}{-1} + \frac{4}{-1} \end{array}$$

$$\boxed{y = 2x - 4}$$

$$23) \quad \begin{array}{r} \frac{1}{3}y - x = -1 \text{ (Solve for } y) \\ +x \quad +x \\ \hline \frac{1}{3}y = x - 1 \end{array}$$

$$\boxed{y = 3x - 3}$$

$$24) \quad \begin{array}{r} 3x - 4y = -12 \text{ (Solve for } y) \\ -3x \quad -3x \\ \hline -4y = -3x - 12 \\ \frac{-4y}{-4} = \frac{-3x}{-4} + \frac{-12}{-4} \end{array}$$

$$\boxed{y = \frac{3}{4}x + 3}$$

