

Examine the work that was done for each problem and CHECK if the answer is correct. If the answer is NOT correct, then on the right hand side explain in WORDS what was done incorrectly. Be sure to indicate the number property that was not used properly. Redo the problem if it is wrong.

$$1) \frac{m-8}{4} = -2 + 8$$

$$4 \left(\frac{m}{4} \right) = (6) \cdot 4$$

$$m = 24$$

$$2) \frac{3 \cdot m}{3} - 9 = -7 \cdot 3$$

$$\begin{array}{r} m - 9 = -21 \\ +9 \quad +9 \\ \hline \end{array}$$

$$m = -12$$

$$3) \frac{3}{2} = \frac{n}{n+9}$$

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

$$\frac{9}{-1} = \frac{-1n}{-1}$$

$$-9 = n$$

$$4) \frac{x}{x+10} = \frac{3}{6}$$

$$6x + 3x + 30 = 0$$

$$\begin{array}{r} 9x + 30 = 0 \\ -30 \quad -30 \\ \hline \end{array}$$

$$\frac{9x}{9} = \frac{-30}{9}$$

$$x = \frac{-30}{9} = -\frac{10}{3}$$

$$5) \frac{8}{9} = \frac{x}{x-5}$$

$$8(x-5) = 9x$$

$$8x - 40 = 9x$$

$$\begin{array}{r} -8x \\ \hline -40 = x \end{array}$$

$$6) \frac{x-6}{x-1} = \frac{8}{7}$$

$$\begin{array}{r} 7x - 42 = 8x - 8 \\ + 8 \qquad + 8 \\ \hline \end{array}$$

$$7x - 50 = 8x$$

$$\underline{-7x} \qquad \underline{-7x}$$

$$-50 = x$$

$$7) \frac{x+5}{5} = \frac{x+10}{10}$$

$$10x+50 = 5x+50$$

$$\quad \underline{-50} \quad \quad \underline{-50}$$

$$10x = 5x$$

$$\underline{-5x} \quad \underline{-5x}$$

$$\frac{5x}{5} = \frac{0}{5}$$

$$x=0$$

$$8) \frac{8}{6} = \frac{p+2}{p+5}$$

$$8(p+5) = 6(p+2)$$

$$8p+40 = 6p+12$$

$$\underline{-6p} \quad \underline{-6p}$$

$$2p+40 = 12$$

$$\underline{-40} \quad \underline{-40}$$

$$\frac{2p}{2} = \frac{-28}{2}$$

$$p = -14$$

$$9) 88 = -4(x-4) - 8x$$

$$88 = -4x + 16 - 8x$$

$$88 = 12x + 16$$

$$\underline{-16} \quad \underline{-16}$$

$$\frac{72}{12} = \frac{12x}{12}$$

$$6 = x$$

$$10) -100 = 5(1 - 3m)$$

$$-100 = 5 - 15m$$

$$\underline{-5} \quad \underline{-5}$$

$$\underline{-105} = \underline{-15m}$$

$$\underline{-15} \quad \underline{-15}$$

$$-7 = m$$

$$11) 8(4 - x) = 37 - 7x$$

$$32 - 8x = 37 - 7x$$

$$\underline{-12} \quad \underline{-12}$$

$$-8x = 25 - 7x$$

$$\underline{+7x} \quad \underline{+7x}$$

$$\underline{-x} = \underline{25}$$

$$\underline{-1} \quad \underline{-1}$$

$$x = -25$$

$$12) -(a + 4) = -4a + 11$$

$$-a - 4 = -4a + 11$$

$$\underline{+4} \quad \underline{+4}$$

$$-a = -4a + 15$$

$$\underline{+4a} \quad \underline{+4a}$$

$$\underline{3a} = \underline{15}$$

$$\underline{3} \quad \underline{3}$$

$$a = 5$$

$$13) 63 = -3(-3x - 3) + 5(1 + 8x)$$

$$63 = 9x + 9 + 5 + 40x$$

$$\quad \underline{-9x} \quad \quad \quad \underline{-9x}$$

$$63 = 15 + 31x$$

$$\underline{-15} \quad \underline{-15}$$

$$\underline{48} = \underline{31x}$$

$$31 \quad 31$$

$$\frac{48}{31} = x$$

$$14) 38 = -7(6n + 7) + 3(3n - 4)$$

$$38 = -42n - 49 + 9n - 12$$

$$38 = -33n - 61$$

$$\underline{+61} \quad \quad \quad \underline{+61}$$

$$\underline{99} = \underline{-33n}$$

$$\underline{-33} \quad \underline{-33}$$

$$-3 = n$$

$$15) 7m - 8m = 4(2m - 3) - 6(m - 1)$$

$$7m - 8m = 8m - 12 - 6m - 6$$

$$-1m = 2m - 18$$

$$\underline{-2m} \quad \underline{-2m}$$

$$\underline{-3m = -18}$$

$$\underline{-3} \quad \underline{-3}$$

$$m = 6$$

$$16) 4(-7 - a) + 8a = -(a + 3)$$

$$-28 - 4a + 8a = -a - 3$$

$$\underline{-28 + 4a} = \underline{-a - 3}$$

$$+ 28$$

$$+ 28$$

$$\underline{4a} = \underline{-a + 25}$$

$$+ a \quad + a$$

$$\underline{5a} = \underline{25}$$

$$\underline{5} \quad \underline{5}$$

$$a = 5$$