

HW: Worksheet

Warm up:

Solve.

$$\frac{4}{3} \left(\frac{3}{4}x \right) = (-7) \frac{4}{3}$$

$$x = -\frac{28}{3}$$

$$-9\frac{1}{3}$$

How many solutions does the following equation have?

$$2x + 7 = 2x + 13$$



How many solutions does the following equation have?

$$4x + 11 = 4x + 11$$

infinitely many solutions

How many solutions does the following equation have?

$$3x + 4 = 5x - 2$$

1

$$\frac{1}{3}n - 2 = 4n$$

$$4 - \frac{1}{3}$$

$$\frac{12}{3} - \frac{1}{3}$$

$$\frac{11}{3}$$

$$\frac{3}{11} \cdot \left(\frac{-2}{-1} \right) \quad \frac{3}{11} (-2) = \left(\frac{1}{3}n \right) \frac{3}{11}$$

$$-\frac{6}{11} = n$$

$$\begin{array}{l} 8 + \frac{3}{5} \\ \frac{40}{5} + \frac{3}{5} \\ \frac{43}{5} \end{array}$$

$$8x - 5 = 7 - \frac{3}{5}x$$

$$+ \frac{3}{5}x \qquad + \frac{3}{5}x$$

$$\frac{43}{5}x - 5 = 7$$

$$+ 5 \quad - 5$$

$$\frac{5}{43} \left(\frac{43}{5}x \right) = \left(\frac{12}{1} \right) \frac{5}{43}$$

$$x = \frac{60}{43}$$

$$8\frac{3}{5}x - 5 = 7$$

$$+ 5 \quad + 5$$

$$\frac{43}{5}x = 12$$

$$\frac{43}{5}x = 12$$

$$3x + \frac{1}{4}(2x + 3) = 6$$

$$3x + \frac{2}{4}x + \frac{3}{4} = 6$$

$$3x + \frac{1}{2}x + \frac{3}{4} = 6$$

$$\frac{7}{2}x + \frac{3}{4} = 6$$

$$\frac{7}{2} \left(\frac{7}{2}x \right) + \frac{3}{4} = 6$$

$$x = \frac{9}{7}$$

$$\frac{6}{1} - \frac{3}{4}$$

$$\frac{24}{4} - \frac{3}{4} = \frac{21}{4}$$

$$1) \frac{1}{2}h - 3 = 9$$

$$2) 4 = -3 - \frac{2}{7}m$$

$$3) 1 + \frac{5}{6}b = -4 - 2b$$

$$4) 5x + \frac{2}{5}(2x + 6) = 2$$

$$1) \frac{1}{2}h - 3 = 9$$

$\quad \quad \quad +9 \quad +3$

$$2 \left(\frac{1}{2}h \right) = (12) \quad 2$$
$$h = 24$$

$$2) 4 = -3 - \frac{2}{7}m$$

$$- \frac{7}{2} (7) = \left(- \frac{2}{7} m \right) \left(- \frac{7}{2} \right)$$

$$- \frac{49}{2} = m$$

$$\frac{5}{6} + \frac{1}{2}$$

$$3) 1 + \frac{5}{6}b = -4 - 2b$$

$$\frac{1 + \frac{5}{6}b = -4 - 2b}{+2b \quad +2b}$$

$$\frac{1 + \frac{17}{6}b = -4}{-1 \quad -1}$$

$$\frac{6}{17} \left(\frac{17}{6}b \right) = (-5) \frac{6}{17}$$

$$b = -\frac{30}{17}$$

$$4) 5x + \frac{2}{5}(2x + 6) = 2$$

$$5x + \frac{4}{5}x + \frac{12}{5} = 2$$

$$\frac{29}{5}x + \frac{12}{5} = 2$$

$$\frac{29}{5} \left(\frac{29}{5}x \right) = \left(\frac{12}{5} \right) \frac{29}{5}$$

$$x = -\frac{21}{29}$$

$$\frac{21}{5} - \frac{12}{5} = \frac{9}{5}$$

