

$$16a. \frac{x}{3} = \frac{4}{x}$$

$$\sqrt{x^2} = \sqrt{12}$$

$$x = \pm\sqrt{12}$$

$$(-2)^2 = 4$$

$$-2 \cdot -2 = 4$$

$$2^2 = 4$$

$$d. \frac{x}{7} = \frac{7}{x}$$

$$\sqrt{x^2} = \sqrt{49}$$

$$x = \pm 7$$

$$(-7)^2 = 49$$

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

$$\frac{7}{7} = \frac{7}{7}$$

$$13b. \frac{(x+6)}{2} = \frac{2x}{3}$$

$$\begin{array}{r} 2x = 3x + 18 \\ -18 \qquad \qquad -18 \end{array}$$

$$\begin{array}{r} 2x - 18 = 3x \\ -2x \qquad \qquad -2x \\ \hline -18 = x \end{array}$$

2, 4, 6, 8, 10, ...
3, 6, 9, 12, ...

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

$$3(x+6) = (x)(2)$$

$$3x + 18 = 2x$$

$$x = -18$$

$$\left(\frac{x}{2} = \frac{x}{3} + 1 \right) \cdot 6$$

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

$$\begin{array}{r} 3x = 2x + 6 \\ -2x \quad -2x \end{array}$$

$$\boxed{x = 6}$$

$$11a. \ 2(x+4) - x = 8$$

$$2x + 8 - x = 8$$

$$x + 8 = 8$$

$$- 8 \quad - 8$$

$$x = 0$$

$$11 \text{ K. } 3(x-6) + 7x = 5(2x-1)$$

$$3x - 18 + 7x = 10x - 5$$

$$10x - 18 = 10x - 5$$

$$-18 = -5$$

'No solution'

$$x = \phi$$

$$9e. \quad \frac{1}{4} (1 - 3x) = -2$$

$$(\cancel{4}) \frac{(1 - 3x)}{\cancel{4}} = -2(4)$$

$$(1 - 3x) = -8$$

$$\begin{array}{r} 1 - 3x = -8 \\ \hline \end{array}$$

$$\begin{array}{r} -3x = -9 \\ \hline -3 \quad \quad -3 \end{array}$$

$$x = 3$$

$$9b. \frac{1}{2} \cdot (3x+1) = -4$$

multiplying by $\frac{1}{2}$ = dividing by 2
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$$\frac{(3x+1)}{2} = -4$$