

With Help...

Solve for x by factoring:

$$4x^2 = 4 + 6x$$

$$\begin{array}{cc} -4x^2 & -4x^2 \end{array}$$

$$0 = \frac{4x^2}{-2} + \frac{6x}{-2} + \frac{4}{-2}$$

$$GCF = -2$$

$$-2(2x^2 - 3x - 2)$$

$2x$	$2x^2$	$-4x$
1	$1x$	-2

$(2x+1)(1x-2)$

$$\begin{array}{l} 2x+1=0 \quad x-2=0 \\ \frac{2x}{2} = \frac{-1}{2} \quad x=2 \\ x = -\frac{1}{2} \quad x=2 \end{array}$$

$-3x$

On your own...

Solve for x by factoring:

$$14x = -4x^2 - 12$$

$$\begin{array}{cc} -4x^2 & -4x^2 \end{array}$$

$$\frac{-4x^2}{-2} - \frac{14x}{-2} - \frac{12}{-2} = 0$$

$$2x^2 + 7x + 6 = 0$$

$2x$	$2x^2$	$4x$
3	$3x$	6

$$(2x+3)(1x+2)$$

$$x + \frac{3}{2}$$

$$x = -\frac{3}{2} \quad x = -2$$

With Help...

Solve for x by factoring:

$$-1 = -3x^2 - 2x$$

$$0 = \frac{-3x^2}{-1} - \frac{2x}{-1} + \frac{1}{-1}$$

$$GCF = -1$$

$$0 = -1(3x^2 + 2x - 1)$$

$$0 = -1(3x-1)(x+1)$$

$$\begin{array}{l} 3x-1=0 \quad x+1=0 \\ \frac{3x}{3} = \frac{1}{3} \quad x=-1 \\ x = \frac{1}{3} \quad x=-1 \end{array}$$

On your own...

Solve for x by factoring:

$$3x^2 = -x + 2$$

$$\begin{array}{cc} -3x^2 & -3x^2 \end{array}$$

$$(3x-2)(x+1) = 0$$

$$\begin{array}{l} 3x-2=0 \quad x+1=0 \\ \frac{3x}{3} = \frac{2}{3} \quad x=-1 \\ x = \frac{2}{3} \quad x=-1 \end{array}$$

$$(-3x+2)(x+1)$$

$$x = \frac{2}{3} \quad x = -1$$