ONE STEP EQUATIONS

$$x + 8 = -3$$
$$-8 \quad -8$$
$$\overline{}$$
$$x + 0 = -11$$
$$\boxed{x = -11}$$

To undo addition use subtraction

$$x - 8 = -3$$
$$+8 \quad +8$$
$$\overline{}$$
$$x + 0 = 5$$
$$\boxed{x = 5}$$

To undo subtraction use addition

$$\frac{-3x}{-3} = \frac{12}{-3}$$
$$1x = \frac{12}{-3}$$
$$\boxed{x = -4}$$

To undo multiplication use division

$$\frac{-3}{1} \cdot \frac{x}{-3} = 12 \cdot \frac{-3}{1}$$
$$\frac{-3x}{-3} = -36$$
$$\boxed{x = -36}$$

To undo division use multiplication

$$\frac{3}{-2} \cdot \frac{-2}{3}x = 6 \cdot \frac{3}{-2}$$
$$\frac{-6x}{-6} = \frac{18}{-2}$$
$$\boxed{x = -9}$$

To undo a fraction (in front of the variable) multiply by the reciprocal

TWO STEP EQUATIONS

$$-2x - 4 = -12$$
$$ +4 \quad\quad +4$$
$$\overline{}$$
$$-2x + 0 = -8$$
$$\frac{-2x}{-2} = \frac{-8}{-2}$$
$$1x = 4$$
$$\boxed{x = 4}$$

STEP 1: Undo addition and subtraction on the variable side

STEP 2: Undo multiplication or division on the variable side

MULTI-STEP EQUATIONS

$$3(2x + 5) - 6 = 4x - 1$$
$$6x + 15 - 6 = 4x - 1$$
$$6x + 9 = 4x - 1$$
$$-4x \quad\quad\quad -4x$$
$$\overline{}$$
$$2x + 9 = 0 - 1$$
$$ -9 \quad\quad -9$$
$$\overline{}$$
$$2x + 0 = -10$$
$$\frac{2x}{2} = \frac{-10}{2}$$
$$1x = -5$$
$$\boxed{x = -5}$$

STEP 1: complete an distribution if necessary

STEP 2: Combine like terms on the same side.

STEP 3: Move all variables terms to the same side

STEP 4: Undo addition or subtraction on the variable side

STEP 5: Undo multiplication or division on the variable side