Solving Two-Step Equations

I. Using Inverse Operations

Be working w/ variable side

ex:
$$-3x + 7 = 19$$
$$ -7 \quad -7$$
$$-3x = 12$$
$$\frac{-3x}{-3} = \frac{12}{-3}$$
$$\boxed{x = -4}$$

Working w/ variable side

ex:
$$-5 = \frac{b}{4} + 6$$
$$-6 \phantom{= \frac{b}{4}} -6$$
$$(4)-11 = \left(\frac{b}{4}\right)\cdot 4$$
$$\boxed{-44 = b}$$

II. Not as Straight Forward

ex:
$$2 - 5x = -18$$
$$-5x + 2 = -2$$
$$\qquad -2$$

$$-5x = -20$$
$$\overline{-5} \qquad \overline{-5}$$

$$\boxed{x = 4}$$

ex:
$$-6 = +8 - \frac{f}{3}$$
$$-6 = -\frac{f}{3} + 8$$
$$-8 \qquad\qquad -8$$

$$(-3)\; -14 = -\frac{f}{3} \cdot -3$$

$$\boxed{42 = f}$$