

Notes #3 ~ Sect. 1.5: Absolute Value Equations

If $|x| = a$, then $x = a$ or $x = -a$.

Ex. 1: Solve $|15 - 3x| = 6$.

****When solving absolute value equations, you must first move all numbers outside of the absolute value to the other side of the equation.****

Ex. 2: Solve $4 - 2|x + 9| = -5$.

Extraneous Solution : A solution of an equation derived from an original equation that is not a solution of the original equation. (In other words...you solve the equation, get two solutions, plug them back into the original equation, one of them doesn't work. That solution is an Extraneous Solution .)

Ex. 3 : Solve and check for extraneous solutions.

$$|3x - 4| = -4x - 1$$