Introduction to Absolute Value equations

$|x| = 10$	$|x| = -10$	$|x| = 0$
$x = 10$ works. Hey, so does $x = -10$! Concisely, $x = \pm 10$.	$x = 10$ *doesn't work*. *Neither does* $x = -10$. Hey...absolute values are **never negative**!	$x = 0$ is the only solution.

For more complicated problems, follow a 3-step approach:

1.) Do the algebra to isolate the absolute value.
2.) Then, **think it through** like the simpler problems above.
3.) Finally, do more algebra to isolate x.

Sample Problems

1) $3|2x + 1| - 7 = 5$
2) $\frac{6|x-2.2|}{5} + 7 = 3$
3) $-4|x - 5| + 1 = -9$
4) $|2x + 3| = -11x + 42$