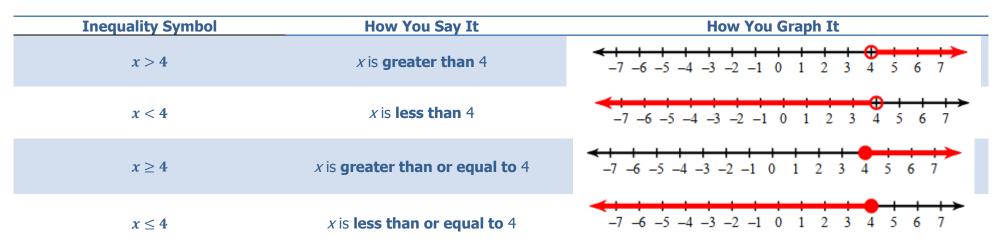
Algebra: <u>Inequalities</u> Know-It-All



Notice the open and closed circles in the graphs

PRO TIPS:

✓ Solve the inequality just like you would solve an equation...for example:

$$x + 3 < 5$$
 Solve as if it said: $x + 3 = 5$

✓ If you have to divide by a negative when you're solving, then you have to change the inequality sign.

$$-6x > 12$$
 Divide by -6 on both sides: $\frac{-6x}{-6} > \frac{12}{-6}$ Next, change the > sign to <. Answer: $x < -2$

 \checkmark Be sure to write your answer so that the variable, usually "x" is on the *left* side of the problem. If you end up with 3 > x, then you need to turn it around and the inequality symbol will change also.

$$3 > x$$
 becomes $x < 3$