## Inequalities and Their Graphs

| SIGN | SAID | GRAPHED |
| :---: | :---: | ---: |
| $>$ | "greater than" | open dot, shade to the right |
| $<$ | "less than" | open dot, shade to the left |
| $\geq$ | "greater than or equal to" | closed dot, shade to the right |
| $\leq$ | "less than or equal to" | closed dot, shade to the left |
| $\neq$ | "not equal to" | open dot, no shading |
|  |  |  |
|  |  |  |

ALWAYS read the inequality sentence starting with the variable.
Ex: $x<4$ is read " $x$ is less than 4 " and the graph:


Ex: $4>\mathrm{x}$ is read " x is less than 4 "


You can rewrite the inequality so that the variable is always on the left.
if $\quad-5 \geq y \quad$ flip \& rewrite $y \leq-5$

Ex: Graph the solutions of each inequality on a number line.
$a \geq 5$

$\mathbf{x} \leq 8$

$-7<y$


