

# Inequalities

Inequality is a statement that says two quantities are NOT equal.

You can use inequality symbols with variables to describe quantities that can have many values.

Example:  $K < 100$

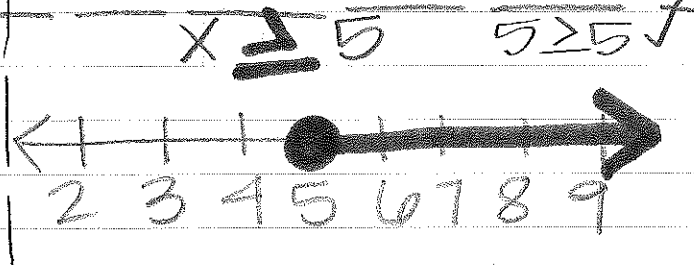
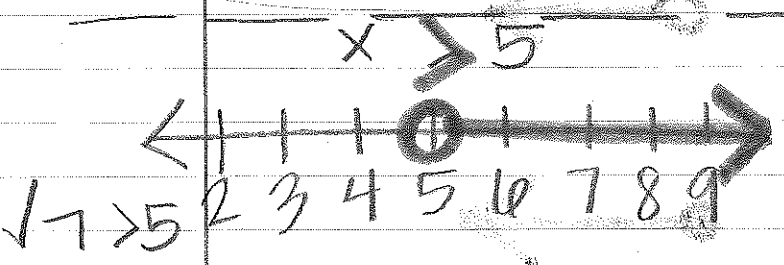
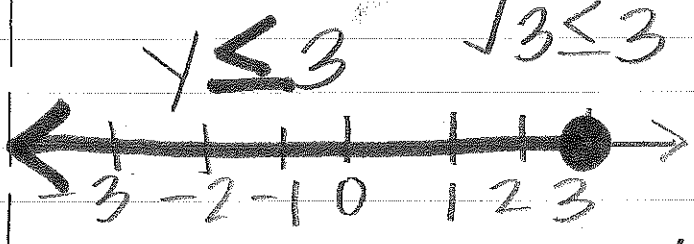
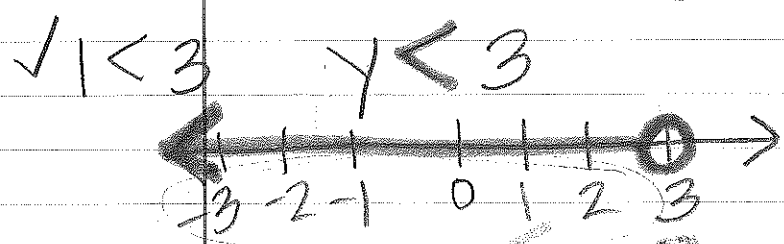
## SYMBOLS

$<$	less than
$>$	greater than
$\leq$	less than or equal to
$\geq$	greater than or equal to

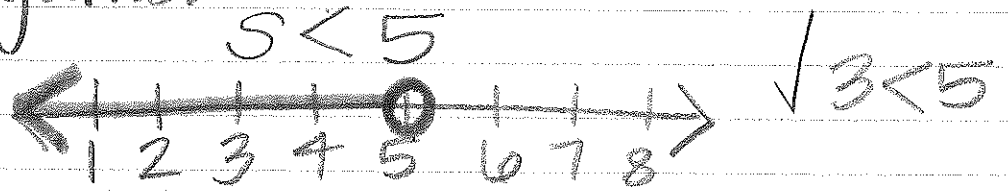
$\circ$  - open circle  $>$  or  $<$   
\*a quantity is NOT included!

$\bullet$  - shaded  $\geq$  or  $\leq$   
\*a quantity is included.

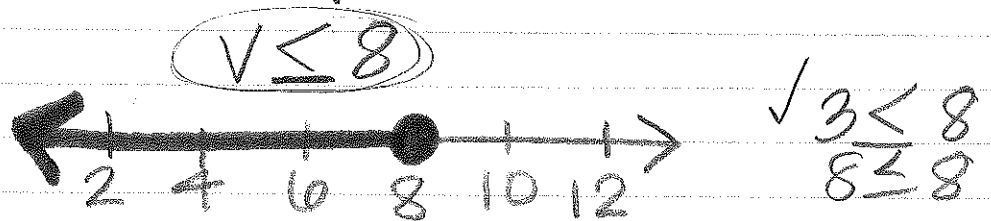
The solution to an inequality is any # that makes the statement TRUE!



The team scored fewer than 5 wins each game.



No more than 8 people can ride in the van.



There are at least 75 fans at the game.

1) inequality  $f \geq 75$

3)  $\checkmark$

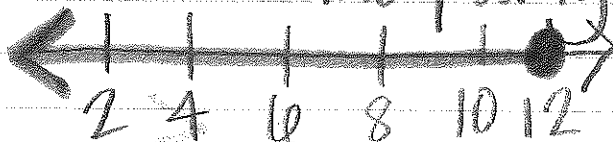
2) graph



$100 \geq 75$   
 $\checkmark$

$X \leq 12$

No more than 12 people can come to the party.



$\checkmark 4 \leq 12$

\*  $x > 7$

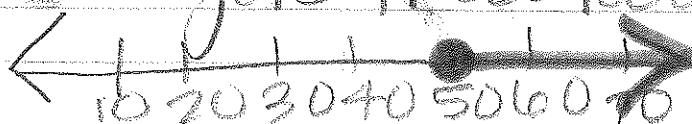
There are more than 7 girls in the class



$\checkmark 8 > 7$   
 $\checkmark$

\*  $y \geq 50$

Anyone 50 yrs or older gets FREE ice cream.



$51 \geq 50$