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Interval Notation

Algebraic
Notation

Interval
Notation

Interval Notation

When the variable is on the left...

$x >$ greater than

$x <$ less than

($>$ or $<$ open circle)

$x \geq$ greater than or equal to.

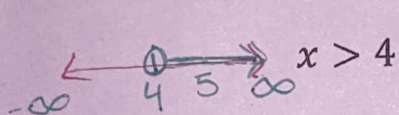
$x \leq$ less than or equal to.

(\geq or \leq closed circle)

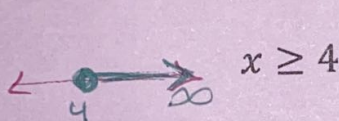
Number line

Ex.

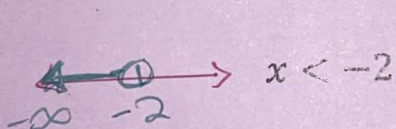
Interval



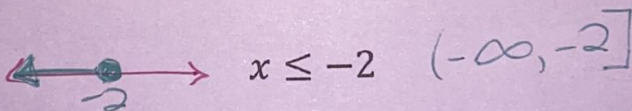
$(4, \infty)$



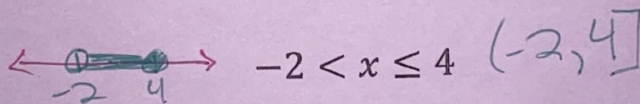
$[4, \infty)$



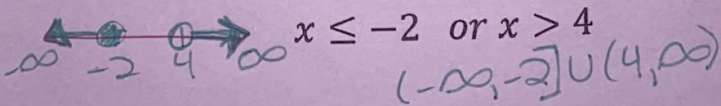
$(-\infty, -2)$



$(-\infty, -2]$



$(-2, 4]$



$x \leq -2$ or $x > 4$
 $(-\infty, -2] \cup (4, \infty)$



All Real #'s $(-\infty, \infty)$

Use...

(Parentheses)

- open circle on # line
- # is not included in the solution (or)
- Always use the () by $-\infty$ and ∞

[Brackets]

- closed circle on # line
- # is included in the solution [or]

* Order is always (Smallest #, Largest #)