

**Topic:**



**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_ **Pd** \_\_\_\_\_

**EQ:**

**Questions/Key Ideas**

**Notes**

What is an inequality?

- Is a \_\_\_\_\_, rather than ONE number
- An algebraic relation showing that a quantity is \_\_\_\_\_ or \_\_\_\_\_ another quantity.

How do you read the inequality symbols?

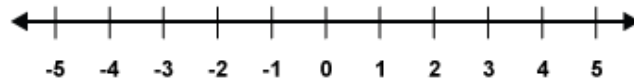
<  
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≤  
≥

How do you graph an inequality on a number line?

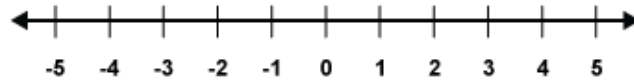
1. Start with a dot on the boundary number
  - Use an \_\_\_\_\_ circle if it is strictly less/greater than
  - Use a \_\_\_\_\_ circle if it is equal to
2. Draw an \_\_\_\_\_ through all numbers that satisfy the inequality  
(HINT: If x is on the LEFT, draw the arrow in the direction of the inequality symbol)

How do you graph an inequality on a number line?

All real #s greater than 2  
 $x > 2$



All real #s less than or equal to 1  
 $x \leq 1$

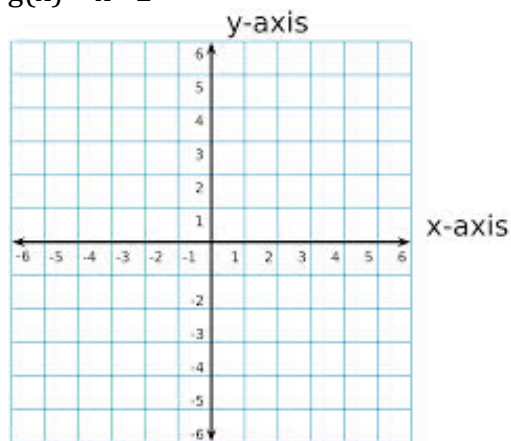


How do you write an inequality in set notation?

All values of x such that  $x < -3$

For which values of x is it true that  $f(x) > g(x)$ ?

$f(x) = -2x + 4$   
 $g(x) = x - 2$



Summary: