

Name _____

(FUN2) The Basics - 6

Today, you will be able to:

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INEQUALITY SYMBOLS:

is greater than

is greater than or equal to

is less than

is less than or equal to

is not equal to

1. Name an integer value of x that satisfies the inequality $x > 5$.
2. Name an integer value of x that satisfies the inequality $-6 \geq x$.
3. Name an integer value of x that satisfies the inequality $x \geq -1$.
4. Name an integer value of x that satisfies the inequality $x < 4$.
5. What is the smallest integer that satisfies the inequality $x > 12$?
6. What is the smallest integer that satisfies the inequality $x \geq 12$?
7. What is the largest integer that satisfies the inequality $x < 3$?

COMPOUND INEQUALITY:

You can split the compound inequality $4 < x < 10$ into two inequalities:

_____ and _____

Compound inequalities will always include the inequality symbols

_____ or _____.

SET BUILDER NOTATION:

INTERVAL NOTATION:

(and) mean

[and] mean

8. What is $\{x|3 < x \leq 7\}$ written in interval notation?
9. What is $\{x|2 \leq x \leq 6\}$ written in interval notation?
10. What is $\{x|-5 \leq x < -1\}$ written in interval notation?
11. What is $\{x|9 < x < 14\}$ written in interval notation?

12. If x is a number in the interval $[4, 8]$, state all integers that satisfy the inequality $x \geq 6$. Explain how you determined these values.

13. If x is a number in the interval $(1, 6)$, state all integers that satisfy the inequality $x < 4$. Explain how you determined these values.