

REVIEW: Writing and Graphing Inequalities

Name _____

Key Concept and Vocabulary

$x > 2$: All numbers greater than 2

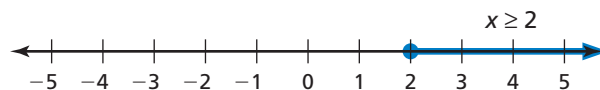
$x \geq 2$: All numbers greater than or equal to 2

$x < 2$: All numbers less than 2

$x \leq 2$: All numbers less than or equal to 2



Visual Model



Skill Examples

- $x > 0$: All positive numbers
- $x \geq 0$: All nonnegative numbers
- $x < 0$: All negative numbers
- $x \leq 0$: All nonpositive numbers

Application Example

- A sign at a clothing store reads "Savings up to 70%." Let S represent the percent of savings. Write an inequality to describe S .

S can be equal to 70%.

Or S can be less than 70%.



An inequality is $S \leq 70\%$.

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Check your answers at BigIdeasMath.com.

Write an inequality for the statement.

- All numbers that are less than 24

- All numbers greater than 10

- All numbers that are at least 11

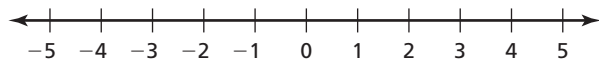
- All numbers that are at most 3

- All numbers that are no more than 5

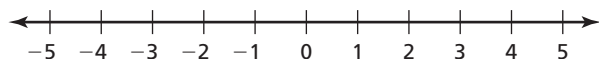
- All numbers less than or equal to 8

Graph the inequality.

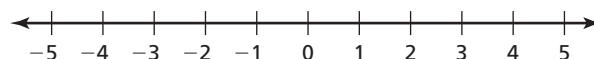
- $x > -1$



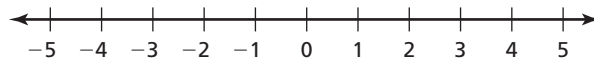
- $x \leq 3$



- $x < 4$



- $x \geq 0$



- A sign at a shoe store reads "Savings up to 60%." Let P represent the percent of savings. Write an inequality to describe P .

