REVIEW: Writing and Graphing Inequalities

Name _____

Key Concept and Vocabulary

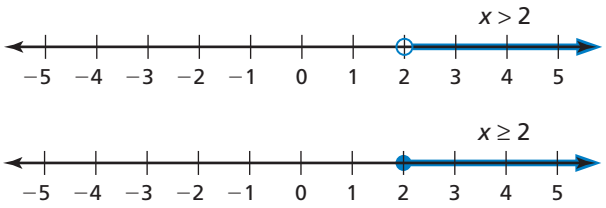
$x > 2$: All numbers greater than 2

$x \geq 2$: 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 Models



Skill Examples

1. $x > 0$: All positive numbers
2. $x \geq 0$: All nonnegative numbers
3. $x < 0$: All negative numbers
4. $x \leq 0$: All nonpositive numbers

Application Example

5. 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 that represents the numbers described.

6. All numbers that are less than 24

$x < 24$

7. All numbers that are at most 3

$x \leq 3$

8. All numbers that are greater than 10

$x > 10$

9. All numbers that are no more than 5

$x \leq 5$

10. All numbers that are at least 11

$x \geq 11$

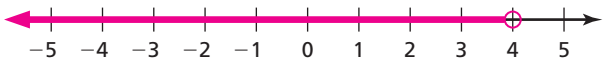
11. All numbers that are greater than or equal to 8

$x \geq 8$

Graph the inequality.

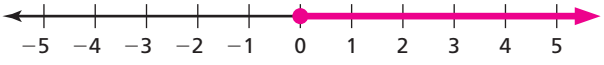
12. $x > -1$

13. $x < 4$



14. $x \leq 3$

15. $x \geq 0$



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

$P \leq 60\%$