Name _____ Date _____ Period _____

LESSON 8-5 · WARM-UP

Warm-Up Practice

Understand Inequalities and Their Solutions

THE MOVE

what this page practices

Read the boundary, the circle, and the direction from the symbol

The number in the inequality is the boundary. ≤ and ≥ get a closed circle because the boundary is a solution; < and > get an open circle. Shade toward the larger numbers for > and ≥, and toward the smaller numbers for < and ≤.

Test a value against the boundary

Put the value in for x and read the comparison. The boundary number itself is a solution only when the symbol has a line under it.

WORKED MODEL

we do this one together

Step 1	Graph $x \geq 3$.
Step 2	The boundary number is _____.
Step 3	The symbol has a line under it, so the circle is _____.
Step 4	x can be larger, so shade to the _____.

YOUR TURN

8 items · about 10 minutes

1. $x \geq 5$. Boundary: _____ Circle: _____ Shade: _____
ANSWER _____

2. $x < 2$. Boundary: _____ Circle: _____ Shade: _____
ANSWER _____

3. $x \leq 8$. Boundary: _____ Circle: _____ Shade: _____
ANSWER _____

4. $x > 0$. Boundary: _____ Circle: _____ Shade: _____
ANSWER _____

5. Is 8 a solution of $x \leq 8$? _____
ANSWER _____

6. Is 0 a solution of $x > 0$? _____
ANSWER _____

7. A graph has a closed circle at 12 and is shaded to the left. Write the inequality. _____
ANSWER _____

8. $x \geq 4$. Test 3, 4, and 5. Which of them are solutions? _____
ANSWER _____