

## Chapter 5 — Inequalities

### Worksheet A: Guided Practice

Name: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

1. Write in words:  $x > 7$

*Read the symbol from left to right.*

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2. Describe the graph of:  $p < 3$

*Is 3 included? Which direction contains values less than 3?*

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3. Solve and graph:  $x + 4 > 9$

*Subtract 4 from both sides.*

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4. Solve and graph:  $3s \geq 12$

*Divide by a positive number.*

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5. Solve and graph:  $-2t < 10$

*Divide by -2 and reverse the symbol.*

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6. A student needs at least 200 points. The student already has 75 points and earns 15 points each hour. Write and solve an inequality for the number of hours needed.

*Let  $h$  represent hours.*

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7. List three values that satisfy:  $n \leq -2$

*Include -2 if it works.*

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8. Write in symbols: m is no more than 4.

*"No more than" includes 4.*

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9. Describe the graph of:  $q \geq -5$

*Is -5 included? Which direction contains values greater than -5?*

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10. Solve and graph:  $r - 6 \leq 2$

*Add 6 to both sides.*

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11. Solve and graph:  $2x - 3 \leq 7$

*Add 3 first, then divide by 2.*

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**12. Solve and graph:  $-3y+2>11$**

*Subtract 2 first. Then divide by -3 and reverse the symbol.*

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**13. Check whether  $x=4$  is a solution to  $2x-3>5$**

*Substitute 4 into the original inequality.*

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**14. A package costs \$1.20 to mail plus \$0.05 per gram. You have \$3.20. Write and solve an inequality for the maximum number of grams.**

*Let  $g$  represent grams.*

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**15. Explain what “at least” means in an inequality. Give one example.**

*Does the boundary value count?*

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