

Name _____ Date _____

**Skills Maintenance****Using Variables****Activity 1**

Find the value of the variable in each equation. Write the answer above the variable.

1. $6 \cdot 80 = \underline{\quad y \quad}$

2. $7 \cdot 8 = \underline{\quad m \quad}$

3. $40 \div \underline{\quad n \quad} = 20$

4. $\underline{\quad s \quad} - 4 = 55$

5. $5 \cdot 11 = \underline{\quad z \quad}$

6. $70 - 30 = \underline{\quad w \quad}$

7. $\underline{\quad b \quad} + 20 = 32$

8. $6 \cdot 9 = \underline{\quad a \quad}$

9. $30 \div 10 = \underline{\quad g \quad}$



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 **Apply Skills**
Inequalities**Activity 1**

Use words to describe what the symbols mean in the inequalities.

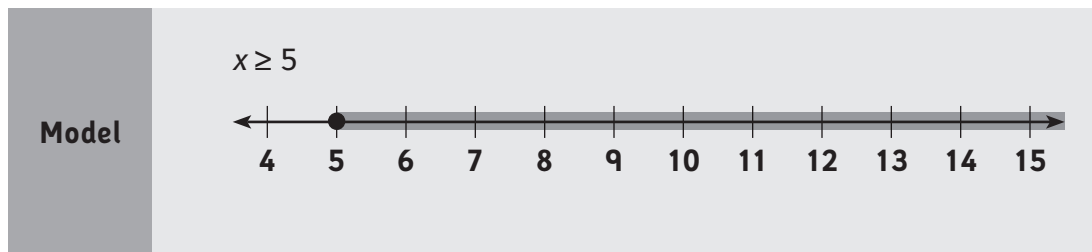
ModelThe inequality $x > 5$ means x is greater than 5.

1. The inequality $x < 4$ means x is _____.
2. The inequality $y \leq 3$ means y is _____.
3. The inequality $5 \geq z$ means 5 is _____.
4. The inequality $6 > w$ means 6 is _____.
5. The inequality $m < 14$ means m is _____.
6. The inequality $s \geq 200$ means s is _____.

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Activity 2

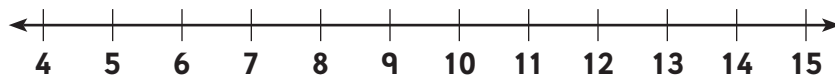
Draw each of the inequalities on the number lines provided. Remember to use an open circle when you use the symbols $>$ or $<$, and to fill in the circle when you use the symbols \geq or \leq .



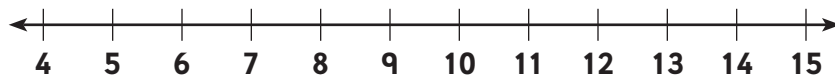
1. $y > 7$



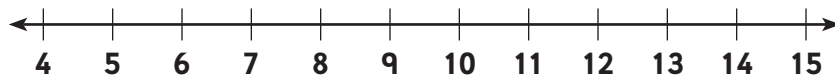
2. $z \geq 10$



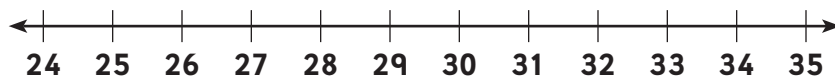
3. $8 > y$



4. $y \geq 7$



5. $m \leq 31$





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 **Problem-Solving Activity**
Rate

**Find the rate for each problem by answering these questions:
What is the comparison? What is the rate proportion?**

- Williams Building Company builds new houses in the Cincinnati area. They just finished a project that involved 45 new homes. Part of their work involves painting the inside of the house. A gallon of paint costs \$10. It takes 2 gallons of paint for 100 square feet of wall space. The inside of the normal house needs 400 square feet to be painted. How much will the paint cost for one house?

- A fire hose can be used to spray water on a large area. The hose can spray 100 gallons of water in 4 minutes. It can take over 2 hours to put out a fire in a small house. How many gallons of water will firefighters use in 20 minutes?

- Shandra is the starting guard on the Wildcats basketball team. She is almost 6 feet tall, and she has scored 60 points in the first 3 games. How many points do you expect her to score in 15 games?

- Carlo works at a factory that makes potato chips. He works six hours a day loading boxes onto trucks. The factory can produce 1 box filled with bags of potato chips every 4 minutes. How many boxes filled with chips does the factory make in 20 minutes?

Unit 3

 **mBook Reinforce Understanding**
Use the mBook *Study Guide* to review lesson concepts.