

## 7.7 Exercises



### Vocabulary and Concept Check

1. **REASONING** How is the graph of the solution of  $2x \geq 10$  different from the graph of the solution of  $2x = 10$ ?

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Name the property you should use to solve the inequality.

2.  $3x \leq 27$

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3.  $7x > 49$

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4.  $\frac{x}{2} < 36$

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5. **OPEN-ENDED** Write two inequalities that have the same solution set: one that you can solve using division and one that you can solve using multiplication.

Inequality 1: \_\_\_\_\_

Inequality 2: \_\_\_\_\_



## Practice and Problem Solving

Solve the inequality. Graph the solution.

12.  $8 \cdot w \leq 72$

Solution: \_\_\_\_\_

Graph:

14.  $\frac{3}{4}b > 15$

Solution: \_\_\_\_\_

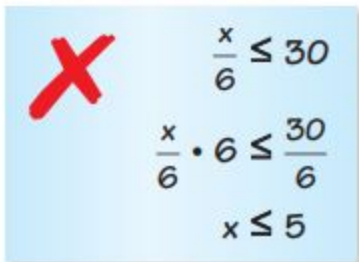
Graph:

16.  $3s \geq 36$

Solution: \_\_\_\_\_

Graph:

22. **ERROR ANALYSIS** Describe and correct the error in solving the inequality.



$\frac{x}{6} \leq 30$   
 $\frac{x}{6} \cdot 6 \leq \frac{30}{6}$   
 $x \leq 5$

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24. **PLAYGROUND** Students at a playground are divided into 5 equal groups with at least 6 students in each group. Write and solve an inequality to represent the number of students at the playground.

Inequality: \_\_\_\_\_

Solution: \_\_\_\_\_

**Graph the numbers that are solutions to both inequalities.**

28.  $x + 7 > 9$  and  $8x \leq 64$

30. **THRILL RIDE** A thrill ride at an amusement park holds a maximum of 12 people per ride.

- a. Write and solve an inequality to find the least number of rides needed for 15,000 people.
- b. Do you think it is possible for 15,000 people to ride the thrill ride in 1 day? Explain.



Park Hours  
10:00 A.M.–10:00 P.M.

a. Inequality: \_\_\_\_\_

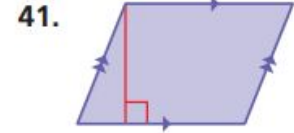
Solution: \_\_\_\_\_

b. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Fair Game Review What you learned in previous grades & lessons

Classify the quadrilateral. (*Skills Review Handbook*)



42. **MULTIPLE CHOICE** On a normal day, 12 airplanes arrive at an airport every 15 minutes. Which rate does not represent this situation? (*Section 5.3*)

- (A) 24 airplanes every 30 minutes       (B) 4 airplanes every 5 minutes  
 (C) 6 airplanes every 5 minutes       (D) 48 airplanes each hour

39. \_\_\_\_\_

40. \_\_\_\_\_

41. \_\_\_\_\_