✓ Vocabulary and Concept Check

1. **OPEN-ENDED** Write an inequality that can be solved by subtracting 7 from each side.

2. **WRITING** Explain how to solve the inequality $x - 6 > 3$.

3. **WRITING** Describe the graph of the solution of $x + 3 \leq 4$.

4. **OPEN-ENDED** Write an inequality that the graph represents. Then use the Subtraction Property of Inequality to write another inequality that the graph represents.

No Work =
No Credit!
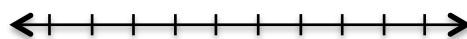
Solve the inequality. Graph the solution.

5. $x - 4 < 5$

6. $5 + h > 7$

7. $3 \geq y - 2$

8. $9 \leq c + 1$

9. $18 > 12 + x$

10. $37 + z \leq 54$

11. $y - 21 < 85$

12. $g - 17 \geq 17$

13. $7.2 < x + 4.2$

14. Your teacher gives you an assignment and says you have at most 2 weeks to complete the assignment. You are still working on the assignment after 5 days. Write and solve an inequality to represent how much more time you have to meet the requirement.

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

$$\times \quad \begin{array}{r} 28 \geq t - 9 \\ -9 \qquad -9 \\ \hline 19 \geq t \end{array}$$

16. **SHOPPING** It costs $x for a round-trip bus ticket to the mall. You have $24. Write and solve an inequality to represent how much money you can spend for the bus fare and still have enough to buy the baseball cap.

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17. **VIDEO GAME** The high score for a video game is 36,480. Your current score is 34,280. Each dragonfly you catch is worth 1 point. You also get a 1000-point bonus for reaching 35,000 points. Write and solve an inequality to represent the number of dragonflies you must catch to earn a new high score.