

Name \_\_\_\_\_

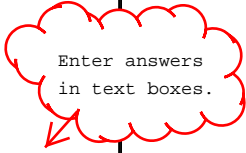


Date \_\_\_\_\_

## Inequalities

State whether the value for the unknown makes the inequality true or false.

1. $8 \leq \frac{40}{b}$  $b = 2$	2. $36 < 9q$  $q = 11$	3. $27 - j > 4$  $j = 15$
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Solve each inequality.

4. $14 < k - 4$	5. $6 \leq 14 + c$	6. $x + (-10) < 9$
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Solve each inequality.

7. $\frac{1}{6} + t \leq \frac{4}{7}$	8. $\frac{1}{2} \geq r - \frac{4}{5}$	9. $v + \frac{3}{8} \geq -4$
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Solve each inequality.

10. $\frac{y}{2} \geq -4$	11. $-8 > \frac{n}{-20}$	12. $39 > 2s$
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**Solve each inequality.**

13.  $t + 17 \leq 10t - 3$

14.  $5 \geq 4(u - 8)$

**State whether the value for the unknown makes the inequality true or false.**

15.  $15 \leq \frac{p}{2}$

$p = 32$

16.  $3y \geq 37$

$y = 23$

17.  $\frac{54}{w} \geq 9$

$w = 2$

**Solve each inequality.**

18.  $-17 \geq \frac{c}{-4}$

19.  $\frac{z}{12} > -5.7$

20.  $-11n \geq 319$

**Complete.**

21. Megan is playing a game using a single die. The die is a six-sided cube with each face having a number from 1-6 on it. For each roll resulting in a number greater than four she gets a point, and for each roll resulting in a number less than four she loses a point. She rolls the die on her next turn and says, "Oh, I guess that means I neither lose nor win any points on this turn." What number must have come up on the die?

22. Jordan is less than 40 miles from Smalltown and driving at an average speed of sixty-two miles per hour. Samuel is less than 30 miles from Smalltown coming from the opposite direction and driving at an average speed of fifty-seven miles per hour. They are both on their way to Smalltown. If this is the only information you are given, is it possible to determine which of the two will reach Smalltown first?