## NAME

Module 5 Solving Linear Inequalities of One Variable
Lesson 2 Solving One-Step Linear Inequalities

DATE

## Solve the following inequalities. Then graph each solution on a number line.

1. $M+2 \geq 4$ $\qquad$

2. $3 y \leq 9$

3. $-10<5 r$ $\qquad$

4. $-y \leq-7$ $\qquad$

5. $x+2<0$ $\qquad$ 10. $N-4 \geq 0$ $\qquad$

6. $-6 \geq 3 y$ $\qquad$

7. $w+3 \geq 7$

8. $6-d<12$ $\qquad$

9. $P-12 \leq-7$

10. $K+2>2$

11. $9 c \geq-54$

12. $\frac{x}{3} \leq 1$ $\qquad$

13. $\frac{N}{5}>2$

14. $-5 \mathrm{~V} \leq 45$ $\qquad$


## Journal

1. Explain, in your own words, why you change the inequality sign when you multiply or divide by a negative number when solving and inequality algebraically.
2. Describe how you would solve and graph the solution to the inequality $x-4 \geq 4$.
3. Susan says that the solution to the inequality $-4 x<16$ is $x<-4$. Joseph says that the solution is $x>-4$. Who is correct and why?
4. What are advantages and disadvantages to solving one-step equations using algebra instead of inspection?
5. Explain how to solve one-step inequalities.

## Cumulative Review

## Simplify each expression.

1. $(-5)(2)(-7)$
2. $(-7)(3)$
3. $\frac{-44}{-11}$
$\qquad$
4. $(29)(0)(-13)$ $\qquad$
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5. $36 \div(-4)$
6. $(-35) \div 5$
7. $\frac{15}{0}$
8. $\frac{-81}{9}$
$\qquad$
9. $0 \div(-6)$
10. $\frac{-12}{12}$
