NAME DATE

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**Module 5** Solving Linear Inequalities of

One Variable

**Lesson 2** Solving One-Step Linear Inequalities



## **Lesson Objectives**

- Solve one-step linear inequalities using addition and subtraction.
- Solve one-step linear inequalities using multiplication and division.

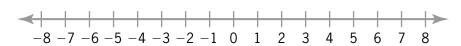
Addition Property of Inequality

For all real numbers a, b, and c, if a > b, then \_\_\_\_\_\_. The property also holds for  $\leq$  , < , and  $\geq$ .



1 Solve and graph.

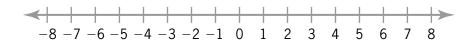
$$-4 < Q - 5$$





2 Solve and graph.

$$N+1 \geq -2$$



Multiplication and Division Property of Inequality (Part I)

For all real numbers a, b, and c, if a is positive and b < c, then

and  $\frac{b}{a} < \frac{c}{a}$ . The property also holds for  $\leq$  , >, and  $\geq$ .



3 Solve and graph.



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Multiplication and Division Property of Inequality (Part II)

For all real numbers a, b, and c, if a is negative and b < c, then

and  $\frac{b}{a} > \frac{c}{a}$ . The property also holds for  $\leq$  , >, and  $\geq$ .



4 Solve and graph.

$$\frac{x}{-3} \ge -2$$

