

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**Module 6** Solving Absolute Value Equations  
and Inequalities

**Lesson 5** Solving Problems Using Absolute  
Value Equations and Inequalities



**guided  
notes**

### Lesson Objective

- Model scenarios using an absolute value equation or inequality, then solve.

- 1 The local meteorologist said that today's high temperature varied by less than  $10^{\circ}\text{F}$  from last year's high temperature for this date,  $55^{\circ}\text{F}$ . What was the range of today's possible high temperatures?
- 2 A tire is to be inflated to a pressure of 36 pounds per square inch (psi). Any pressure varying more than 3 psi from the recommended pressure is considered dangerous. Find the maximum and minimum pressures the tire can have before it is considered dangerous.
- 3 The cooling tank of an industrial machine should contain 20.5 kL of water. When the amount of water varies by more than 0.3 kL from the ideal, an alarm sounds. For what amounts of water does an alarm sound?

