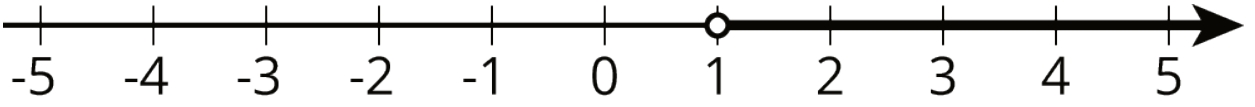
Unit 6 Lesson 13: Reintroducing Inequalities

1 Greater Than One (Warm up)

Student Task Statement

The number line shows values of x that make the inequality $x > 1$ true.



1. Select **all** the values of x from this list that make the inequality $x > 1$ true.

    a. 3

    b. -3

    c. 1

    d. 700

    e. 1.05

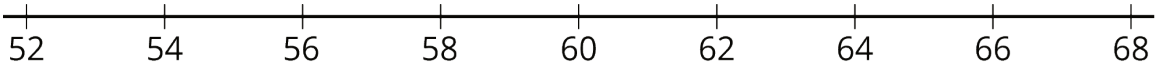
2. Name two more values of x that are solutions to the inequality.

2 The Roller Coaster

Student Task Statement

A sign next to a roller coaster at an amusement park says, "You must be at least 60 inches tall to ride." Noah is happy to know that he is tall enough to ride.

1. Noah is x inches tall. Which of the following can be true: $x > 60$, $x = 60$, or $x < 60$? Explain how you know.
2. Noah's friend is 2 inches shorter than Noah. Can you tell if Noah's friend is tall enough to go on the ride? Explain or show your reasoning.
3. List one possible height for Noah that means that his friend is tall enough to go on the ride, and another that means that his friend is too short for the ride.
4. On the number line below, show all the possible heights that Noah's friend could be.



5. Noah's friend is y inches tall. Use y and any of the symbols $<$, $=$, $>$ to express this height.

3 Is the Inequality True or False?

Student Task Statement

The table shows four inequalities and four possible values for x. Decide whether each value makes each inequality true, and complete the table with "true" or "false." Discuss your thinking with your partner. If you disagree, work to reach an agreement.

x	0	100	-100	25
$x \leq 25$				
$100 < 4x$				
$-3x > -75$				
$10 \geq 35 - x$				