Unit 2 Lesson 20: Interpreting Inequalities

1 Math Talk: Solving Inequalities (Warm up)

Student Task Statement

Mentally solve for x.

- $5x < 10$
- $10 > 6x - 2$
- $9x < 5 - 23$
- $11(x - 3) < 46 - 2$

2 Checking and Graphing Inequalities

Student Task Statement

Solve each inequality. Then, check your answer using a value that makes your solution true.

1. $-2x < 4$

    a. Solve the inequality.

    b. Check your answer using a value that makes your solution true.

2. $3x + 5 > 6x - 4$

    a. Solve the inequality.

    b. Check your answer using a value that makes your solution true.

3. $-3(x + 1) \geq 13$

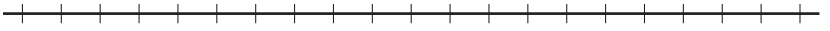
   a. Solve the inequality.

   b. Check your answer using a value that makes your solution true.

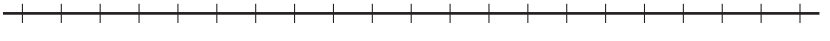
For each statement:

- Use a number line to show which values satisfy the inequality.
- Express the statement symbolically with an inequality.

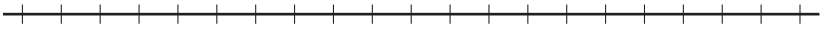
1. The elevator can lift up to 1,200 pounds. Let x represent the weight being lifted by the elevator.



2. Over the course of the senator's term, her approval rating was always around 53% ranging 3% above or below that value. Let x represent the senator's approval rating.



3. There's a minimum of 3 years of experience required. Let x represent the years of experience a candidate has.



3 Card Sort: What's the Situation?

Student Task Statement

Your teacher will give you a set of cards that show a graph, an inequality, or a situation. Sort the cards into groups of your choosing. Be prepared to explain the meaning of your categories. Then, sort the cards into groups in a different way. Be prepared to explain the meaning of your new categories.