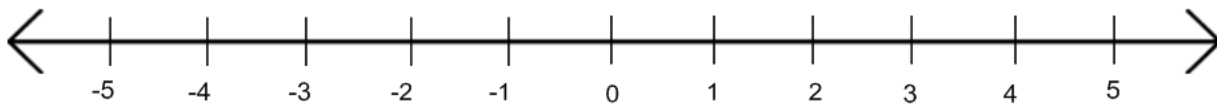


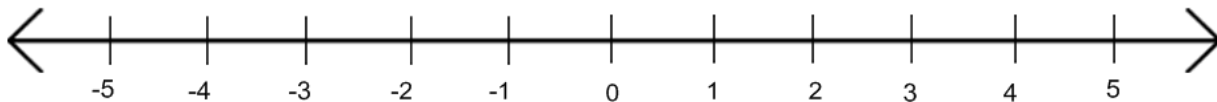
1. List three numbers that are less than 2

Graph the inequality $x < 2$.



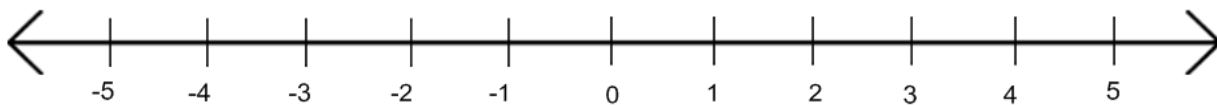
2. List three numbers that are greater than or equal to -4

Graph the inequality $x \geq -4$.



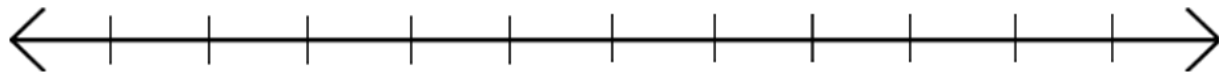
3. List three numbers that are both greater than or equal to -4 and less than 2.

Graph the inequality $-4 \leq x < 2$.

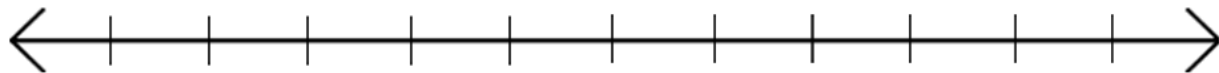


Mini Lesson: Compound Inequalities

1. Solve the inequality $-4 \leq 3x + 2 < 11$ and graph the solution.



2. Graph the solution of the compound inequality $x + 1 < 5$ or $x - 2 \geq 0$.



Work Period: Compound Inequalities

Exercise 2

Consider the compound inequality $-1 < x < 0$

- Rewrite the inequality as a compound statement of inequality.
- Write a sentence describing the possible values of x .
- Graph the solution set on the number line below.



Exercise 3

Consider the compound inequality $-5 < 2x + 1 \leq 4$.

- Rewrite the inequality as a compound statement of inequality.
- Solve each inequality for x . Then, write the solution to the compound inequality.
- Write a sentence describing the possible values of x .
- Graph the solution set on the number line below.



Exercise 4

Given $x < -3$ or $x > -1$

- a. What must be true in order for the compound inequality to be a true statement?
- b. Write a sentence describing the possible values of x .
- c. Graph the solution set on the number line below.



Exercise 5

Given $x + 4 \leq 6$ or $x - 1 > 3$

- a. Solve each inequality for x . Then, write the solution to the compound inequality.
- b. Write a sentence describing the possible values of x .
- c. Graph the solution set on the number line below.



Name _____

Date _____

Lesson 16: Solving and Graphing Inequalities Joined by "And" or "Or"

Exit Ticket

1. Solve each compound inequality for x and graph the solution on a number line.

a. $9 + 2x < 17$ or $7 - 4x < -9$

b. $6 \leq \frac{x}{2} \leq 11$

Name _____

Lesson 16 HW: Solving and Graphing Inequalities Joined by "And" or "Or"

Solve each inequality for x and graph the solution on a number line.

1. $x - 2 < 6$ or $\frac{x}{3} \geq 4$

2. $-6 \leq \frac{x+1}{4} < 3$

3. $5x + 2 \geq 27$ and $3x - 1 < 29$

4. $2x > 8$ or $-2x < 4$