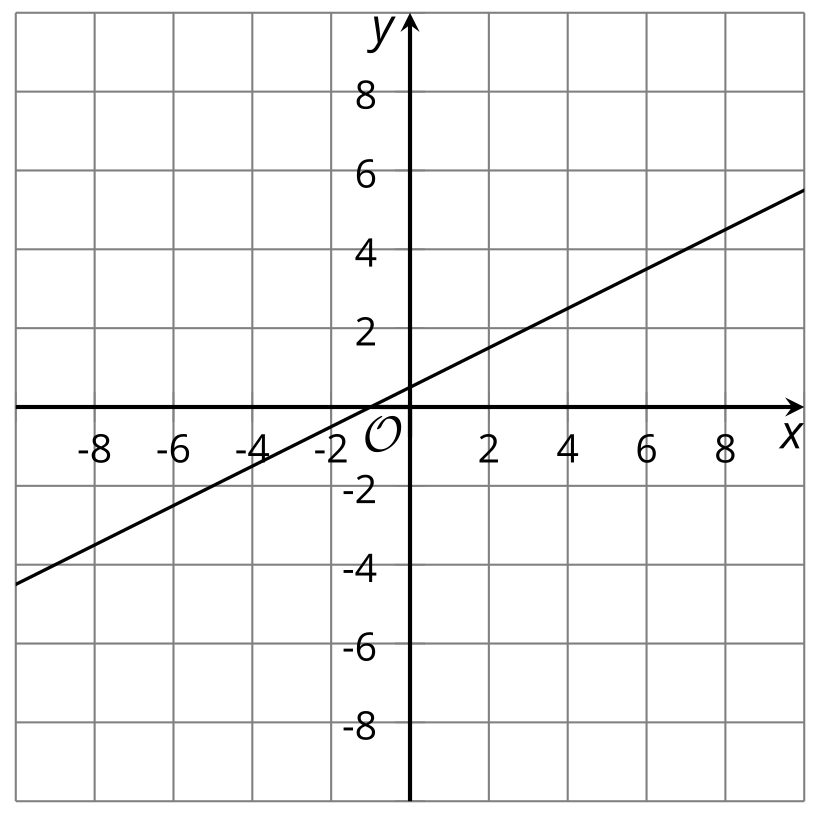
### Lesson 21 Practice Problems

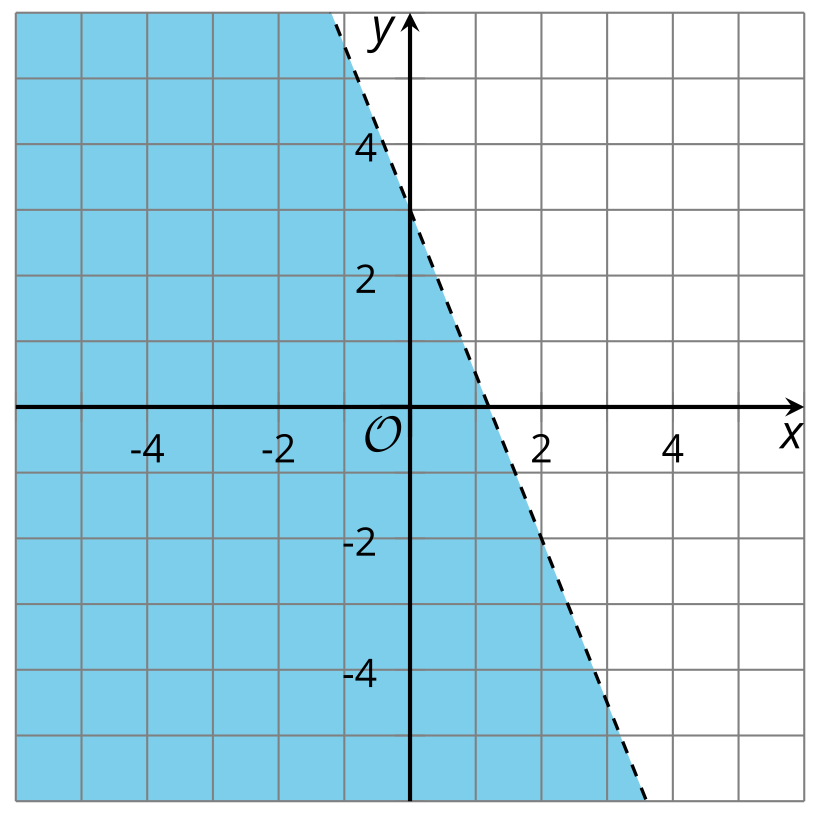
1. Here is a graph of the equation .

* 
* ​​​​​​
  1. Are the points and solutions to the equation? Explain or show how you know.
  2. Check if each of these points is a solution to the inequality :

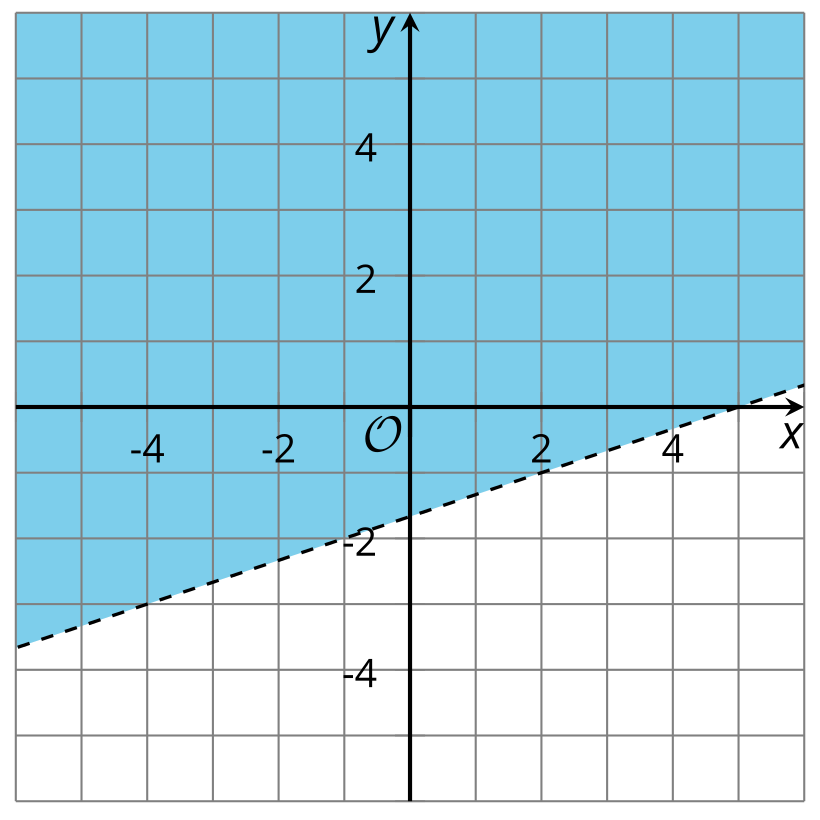
|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

* 1. Shade the region that represents the solution set to the inequality .
  2. Are the points on the line included in the solution set? Explain how you know.

1. Select **all** coordinate pairs that are solutions to the inequality .
2. Consider the linear equation .
   1. The pair is a solution to the equation. Find another  pair that is a solution to the equation.
   2. Are  and   solutions to the inequality ? Explain how you know.
   3. Explain how to use the answers to the previous questions to graph the solution set to the inequality .
3. The boundary line on the graph represents the equation . Write an inequality that is represented by the graph.

* 

1. Choose the inequality whose solution set is represented by this graph.

* 

1. Solve each system of equations without graphing.

* (From Unit 2, Lesson 14.)

1. Mai and Tyler are selling items to earn money for their elementary school. The school earns dollars for every wreath sold and dollars for every potted plant sold. Mai sells 14 wreaths and 3 potted plants and the school earns $70.50. Tyler sells 10 wreaths and 7 potted plants and the school earns $62.50.

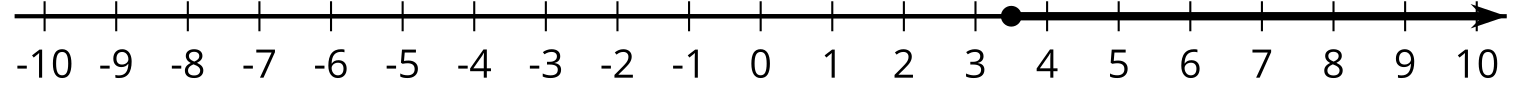
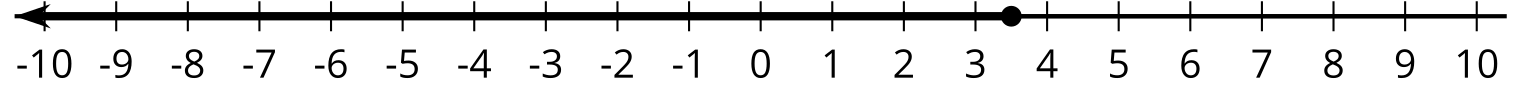
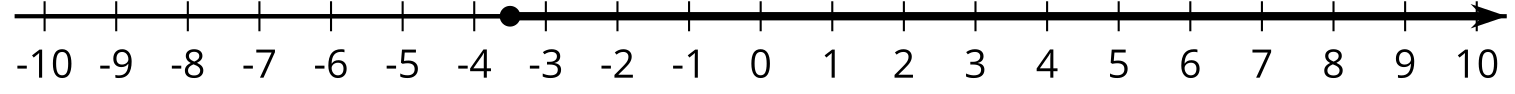
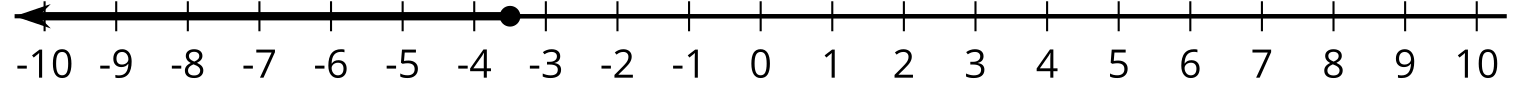
* This situation is represented by this system of equations:
* Explain why it makes sense in this situation that the solution of this system is also a solution to .
* (From Unit 2, Lesson 15.)

1. Elena is planning to go camping for the weekend and has already spent $40 on supplies. She goes to the store and buys more supplies.

* Which inequality represents , the total amount in dollars that Elena spends on supplies?
* (From Unit 2, Lesson 18.)

1. Solve this inequality:

* (From Unit 2, Lesson 19.)

1. Which graph represents the solution to ?
   1. 
   2. 
   3. 
   4. 

* (From Unit 2, Lesson 19.)

1. Solve . Explain how to find the solution set.

* (From Unit 2, Lesson 20.)



© CC BY 2019 by Illustrative Mathematics®