

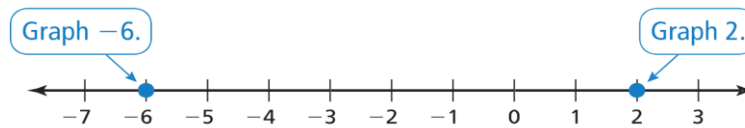
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Math Unit 6: Integers and the Coordinate Plane**Lesson 6.2- Comparing and Ordering Integers****SWBAT:****Paraphrase:****Essential Question:** How can you use a number line to order integers?

Example 1

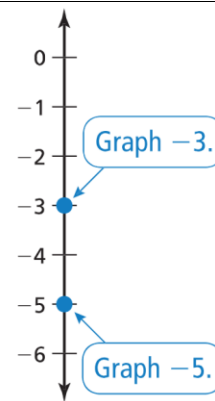
Compare 2 and -6.

••• 2 is to the right of -6. So, $2 > -6$.

Example 2

Compare -5 and -3.

••• -5 is below -3. So, $-5 < -3$.



Your Turn

Copy and complete the statement using $<$ or $>$.

1. 0 -4

2. -5 5

3. -8 -7

Example 3

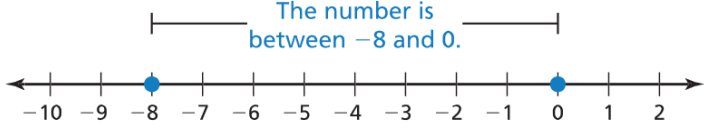
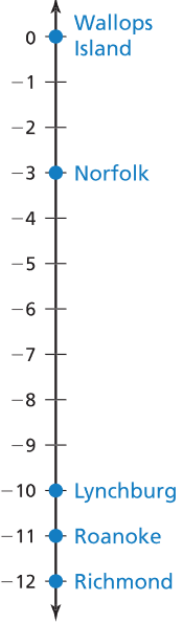
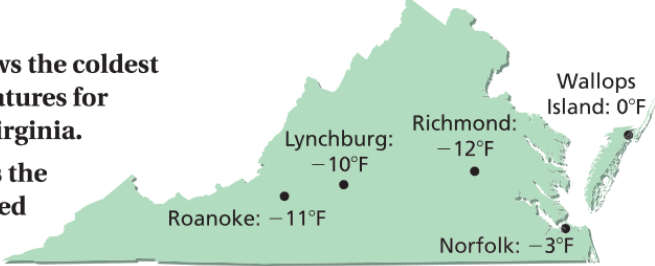
Order -4, 3, 0, -1, -2 from least to greatest.

Graph each integer on a number line.



Write the integers as they appear on the number line from left to right.

••• So, the order from least to greatest is -4, -2, -1, 0, 3.

Your Turn	<p>Order the integers from least to greatest.</p> <p>4. $-2, -3, 3, 1, -1$ 5. $4, -7, -8, 6, 1$</p>
Example 4	<p>A number is greater than -8 and less than 0. What is the greatest possible integer value of this number?</p> <p>The number is greater than -8 and less than 0. So, the number must be to the right of -8 and to the left of 0 on a horizontal number line.</p>  <p>The greatest possible integer value between -8 and 0 is the integer farthest to the right on the number line between these values, which is -1.</p>
Your Turn	<p>6. In Example 4, what is the least possible integer value of the number?</p>
Example 5	 <p>The diagram shows the coldest recorded temperatures for several cities in Virginia.</p>  <p>a. Which city has the coldest recorded temperature?</p> <p>Graph each integer on a vertical number line.</p> <p>❖ -12 is the lowest on the number line. So, Richmond has the coldest recorded temperature.</p> <p>b. Has a negative Fahrenheit temperature ever been recorded on Wallops Island? Explain.</p> <p>❖ The coldest recorded temperature on Wallops Island is 0°F, which is greater than every negative temperature. So, a negative temperature has never been recorded on Wallops Island.</p>
Your Turn	<p>7. In Example 5, Norfolk recorded a new record low last night. The new record low is greater than the record low in Lynchburg. What integers can represent the new record low in Norfolk?</p>
Notes / Questions	