

Name: _____

Period: _____

Date: _____

Math Unit 6: Integers and the Coordinate Plane**Lesson 6.1- Integers****SWBAT:****Paraphrase:****Essential Question:** How can you represent numbers that are less than 0?

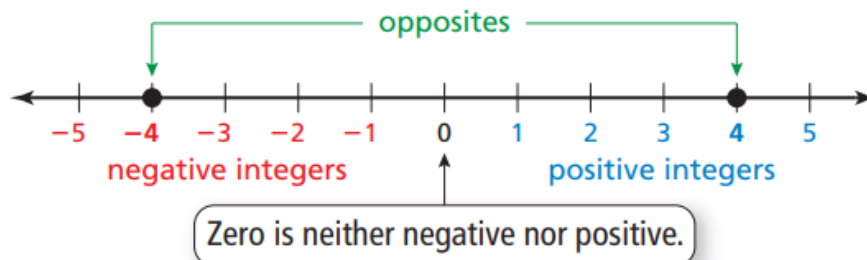
Vocabulary

Positive numbers-

Negative numbers-

Opposites-

Integers-



Example 1

Write a positive or negative integer that represents the situation.**a. A contestant gains 250 points on a game show.***Gains* indicates a number greater than 0. So, use a positive integer.

••• +250, or 250

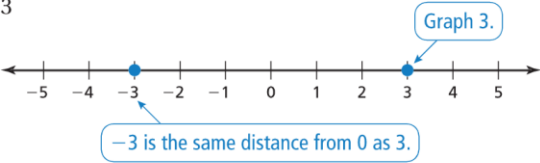
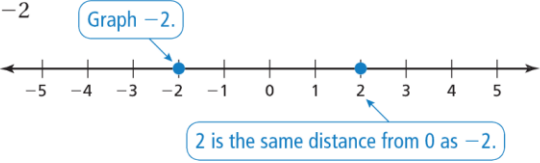
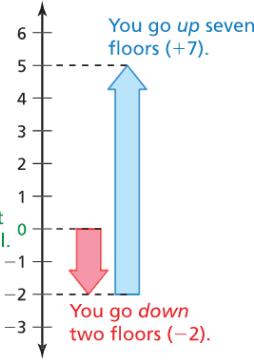
b. Gasoline freezes at 40 degrees below zero.*Below zero* indicates a number less than 0. So, use a negative integer.

••• -40

Your Turn

Write a positive or negative integer that represents the situation.

1. A hiker climbs 900 feet up a mountain.
2. You have a debt of \$24.
3. A student loses 5 points for being late to class.
4. A savings account earns \$10.

<p>Example 2</p>	<p>Graph each integer and its opposite.</p> <p>a. 3</p>  <p>b. -2</p> 								
<p>Your Turn</p>	<p>Graph the integer and its opposite.</p> <p>5. 6</p> <p>6. -4</p> <p>7. -12</p> <p>8. 1</p>								
<p>Example 3</p>	<p>You deliver flowers to an office building. You enter at ground level and go down 2 floors to make the first delivery. Then you go up 7 floors to make the second delivery.</p> <p>a. Write an integer that represents each position.</p> <table border="0" data-bbox="397 787 779 913"> <thead> <tr> <th><i>Position</i></th> <th><i>Integer</i></th> </tr> </thead> <tbody> <tr> <td>You enter at ground level.</td> <td>0</td> </tr> <tr> <td>You go down 2 floors.</td> <td>-2</td> </tr> <tr> <td>You go up 7 floors.</td> <td>+7</td> </tr> </tbody> </table> <p>b. Write an integer that represents how you return to ground level.</p> <p>Use a number line to model your movement, as shown.</p> <p>The second delivery is on the fifth floor. You must go down 5 floors to return to ground level.</p> <p>❖ The integer representing “down 5 floors” is -5.</p> 	<i>Position</i>	<i>Integer</i>	You enter at ground level.	0	You go down 2 floors.	-2	You go up 7 floors.	+7
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<p>Your Turn</p>	<p>You start a game with 10 points. You gain 4 points in the 1st round. In the 2nd round, you lose 7 points.</p> <p>a. Write an integer that represents each point level.</p> <p>b. After the 3rd round, your total score is 10 points. Write an integer that represents how many points you received in the 3rd round.</p>								
<p>Notes / Questions</p>									