Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CFS for top quality work**

* + Number line is labeled with **zero, p-value, q-value, and arrows**
  + Arrow indicate magnitude and direction for p-value and q-value
  + Answer is given in the context of the problem (if applicable)

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

UNIT 1 LESSON 1

**AIM**: SWBAT add integers on a number line.

**THINK ABOUT IT!**

Model the expressions -2 + 9 and -2 + (-4) by accurately labeling using the number lines below





Test the Conjecture #1) Find the value of the expressions below. Represent you answer on the number line provided.

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5 + (-7) + 3



Test the Conjecture #2) Draw a number line to determine the value that will make the equation true:

9 + \_\_\_\_\_ = 0

Conjecture

|  |
| --- |
| Adding a \_\_\_\_\_\_\_\_\_\_\_ value results in a larger quantity and adding a \_\_\_\_\_\_\_\_\_\_\_value results in a smaller quantity |

**PARTNER PRACTICE**

|  |
| --- |
| *Bachelor Level* |

**CFS for top quality work**

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1. Model the following expression:

-8 + 5



1. Model the sum of 6 + (-7) on the number line and determine the sum



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|  |
| --- |
| *Master Level* |

1. Which of the expressions below accurately describe the given number line?



1. -6 + 7 + 3
2. -6 + 7 + (-3)
3. -6 + 13 + 3
4. -6 + (-7) + (-3)
5. -6 + 13 + (-3)
6. -6 + (-13) + (-3)
7. The temperature in Chicago at 6AM is -4 degrees. By noon, the temperature had increased 10 degrees. By 7PM, the temperature had fallen 8 degrees from the temperature at noon. What is the temperature in Chicago at 7PM. Model your work on a vertical number line.

**INDEPENDENT PRACTICE**

**CFS for top quality work**

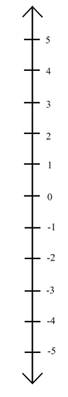
* + Number line is labeled with **zero, p-value, q-value, and arrows**
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  + Answer is given in the context of the problem (if applicable)

|  |
| --- |
| *Bachelor Level* |

**Directions:** Determine the sum by modelling on the number line provided.

1.) -9 + 6



2.) 3 + (-5) + (-1)

3.) Jamie’s bank account currently has a negative balance of -2 dollars. How much money will be in her account if she deposits 8 dollars?



|  |
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| *Master Level* |

4.) Rebecca and her friend are playing a game where they try and guess what number they are thinking about. Rebecca thinks about her mystery number and gives the hint “if you add -4 to this number, the sum will be 5”.

*Part A:* Draw your own number line and model this situation to determine Rebecca’s mystery number.

*Part B:* What are two other hints that Rebecca could have given that would have resulted in the same answer?

5.) Model each of the equations below on a number line to determine the missing value.

|  |  |  |
| --- | --- | --- |
| -4 + \_\_\_ = 2 | **\_\_\_\_** + (-2) = -5 | 2 + (-5) + \_\_\_\_ = 0 |

6.) Justin’s bank account started with $8 at the beginning of the day. He bought pizza and soda which cost him $6. He then bought a magazine and checked his balance which was -$2.

*Part A:* Write an equation that represents this situation.

*Part B:* Model the situation on a number line and determine how much the magazine cost.

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| *PhD Level* |

7. Write two different expressions using at least three terms that has the same sum as -1 + (-3). You cannot use zero in your expression.

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CFS for top quality work**

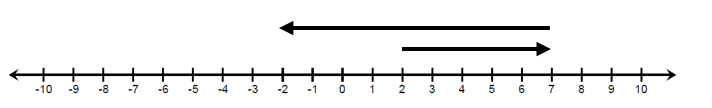
* + Number line is labeled with **zero, p-value, q-value, and arrows**
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**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**EXIT TICKET**

|  |  |  |  |
| --- | --- | --- | --- |
| Self-assessment | I mastered the learning objective today. | I am almost there. | Need more practice and feedback. |
| Teacher feedback | You mastered the learning objective today. | You are almost there. | You need more practice and feedback. |

1. The temperature in Juneau, Alaska at noon was -8 degrees Celsius. By 1PM, the temperature increased by 10 degrees. Draw a number line to represent the situation and determine the temperature at 1PM.
2. Write an equation for the diagram below. Assume the interval for the number line is 1. Explain why your expression represents the number line.



**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**