Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_

Mr. Tallman Math 7-8 A

**Do Now**

Write the opposite of each number on the lines below.

|  |  |  |
| --- | --- | --- |
| 1) $3$ \_\_\_\_\_\_\_\_\_\_\_\_\_ | 2) $-28$ \_\_\_\_\_\_\_\_\_\_\_\_\_ | 3) 42 \_\_\_\_\_\_\_\_\_\_\_\_\_ |

Evaluate each absolute value.

|  |  |  |
| --- | --- | --- |
| 4) $\left|17\right|=$ | 5) $\left|-9\right|=$ | 6) $-\left|-5\right|=$ |

Write an integer for each situation.

|  |  |
| --- | --- |
| 7) You go up 8 floors on an elevator. \_\_\_\_\_\_\_\_ | 8) You dive 200 feet into the ocean. \_\_\_\_\_\_\_\_\_ |

**Lesson #2 – Adding Integers Using a Number Line**

**Recall:**

* Integers are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The zero on the number line is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.



* Zero is neither \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ nor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Example 1)

1. Model the expression $-2+(-4)$ on the number line below.



1. Repeat the process from part (a) and model $\left(-4\right)+\left(-2\right)$

What do you notice about the two sums from parts a and b? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Do think order matters when adding numbers? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Example 2) The temperature was $2°$ below zero. The temperature then drops by $5°$. What is the temperature now?

1. What is the original temperature

written as an integer?\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Mark the temperature on the number line
2. A drop in temperature of $5°$ is like adding

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the temperature.

Count the number line to find the final temperature.

1. What is the temperature written as an integer? \_\_\_\_\_\_\_\_\_\_

The temperature is now \_\_\_\_\_\_\_ degrees **above/below** zero.

Example 3) Model the expression $4+\left(-3\right)$ on the number line below.



Example 4) Model the expression $-7+5$ on the number line below.



**Now, You Try! Model each sum below on the number line.**

|  |  |
| --- | --- |
| 5) $-3+(-1)$ | 6) $-4+(-3)$ |
| 7) $3+(-4)$ | 8) $-5+2$ |

9) A football team receives a 5 yard penalty on one play and a 10 yard penalty on the next. Write a sum of **negative integers** to represent this situation. Then use the number line to evaluate the expression.



10) Suppose you received $10 dollars from your grandmother for your birthday. You spent $4 on snacks. Using addition, how would you write a mathematical expression to express this situation. Then use the number line to evaluate the expression.



**Challenge:**

David and Victoria were playing a card game. David drew three cards, -6, 12, and -4. What is the sum of his cards? Model your answer on the number line below.

