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

Mr. Tallman Math 7-8A

**Do Now**

**Evaluate the following:**

|  |  |  |
| --- | --- | --- |
| 1) | 2) | 3) |
| 4) = | 5) = | 6) = |

**Lesson #6 – Multiplying and Dividing Integers**

Example 1) Lisa owes $2 to 6 friends.

a) Represent this situation on a number line.



b) Represent this situation by writing an **addition** equation.

c) Represent this same situation by writing a **multiplication** equation.

d) Represent this same situation by writing a division equation.

**Rules for Multiplying and Dividing Integers**

* If the signs are the same:
* If the signs are different:

**Example 1) Find the product or quotient.**

|  |  |  |  |
| --- | --- | --- | --- |
| A) | B) = | C) = | D) |
| E) | F) | G) | H) |

We can use our multiplication rule to solve exponents.

**Example 2) Solve each exponent.**

|  |  |  |
| --- | --- | --- |
| A) | B) | C) |

**Example 3)** A manatee population decreases by 15 manatees each year for 3 years. Find the change in the manatee population after three years. Show work below.

Example 4) Evaluate each expression below when and

|  |  |
| --- | --- |
| A) | B) |

**Now, You Try! Evaluate the following.**

|  |  |  |
| --- | --- | --- |
| 4) | 5) | 6) |
| 7) | 8) | 9) |

10) You lose 5 points for every wrong answer in a trivia game. What represents the change in your points after answering 8 questions wrong? Show work below.

11) Evaluate the following when and

|  |  |
| --- | --- |
| A) | B) |

**Challenge Problems**

Evaluate the following. (HINT: Use PEMDAS)

|  |  |  |
| --- | --- | --- |
| 12) | 13) | 14) |

15) Evaluate when and

16) You measure the height of the tides using the support beams of a pier. The height of the tide at 2 PM was 59 inches. The height of the tide at 8 PM was 8 inches. What is the mean (average) hourly change in height?