**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Notes# 1**

**Notes: Comparing and Ordering Integers**

►Two numbers that are the same distance from \_\_\_\_\_\_\_\_\_\_\_\_\_ on a number line

are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

►\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are the set of positive whole numbers, their opposites and zero. Below are some real world examples of integers



►The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a number is it’s

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ away from zero on a number line. The symbol is $\left|\right|.$

Example: $\left|-3\right|$ $\left|14\right|$

**Example 1** **Finding Opposites**

Find the opposite of 2. To do this, look on a number line.

**You Try It!**

 Find the opposite of each number. Use a number line if needed.

1. – 8 b) 12 c) 4

**Example 2** **Finding Absolute Value**

Find $\left|-5\right|.$ Use a number line to help. Remember, always start at zero!

1

3

4

5

– 1

– 5

– 3

– 2

2

– 4

0

**You Try It!**

Find each absolute value. If needed, use a number line to help. Remember, always start at zero!

1. $\left|4\right|.$ b) $\left|-2\right|.$ c) $\left|0\right|.$

►When we have a number line the numbers to the left of zero are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ while the numbers to the right of zero are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1

3

4

5

– 1

– 5

– 3

– 2

2

– 4

0

 Negative and decreasing Positive and increasing

**Example 3** **Comparing Integers**

 Compare – 8 and 3 using a number line. Use <, > or =.

**You Try It!**

Compare each integer using <, > or =. Use a number line if needed.

1. – 6 4 b) 2 0 c) 4 – 4

**Example 4** **Ordering Integers**

Arrange the cities by temperature, coldest (lowest) to warmest (highest) on a number line.

|  |  |
| --- | --- |
| **City** | **Low** |
| Albuquerque, NM | 8 |
| Chicago, IL | -8 |
| Cleveland, OH | -5 |
| Columbia, SC | 4 |
| Providence, RI | 1 |
| Reno, NV | -2 |

















**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_HW# 1**

**HW: Comparing and Ordering Integers**