Name _____ Date _____ Class _____

Interactive Study Guide

LESSON 9-1

Understanding Integers

Vocabulary
absolute value
integer
negative
opposite
positive

Positive numbers are greater than 0. They can be shown with or without the positive sign. For example: 25 or +25

Negative numbers are less than 0. They are always written with a negative sign. For example: −25

Identifying Positive and Negative Numbers in the Real World
Name a positive or negative number to represent each situation.

A. earning $65

_____ numbers are used to represent gains or increases.

_____ 65 What sign do you use to represent earnings?

B. a decrease of 46 points

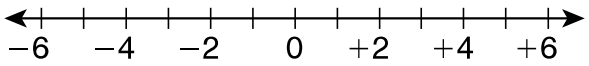
_____ numbers are used to represent losses or decreases.

_____ 46 What sign do you use to represent a decrease?

On a number line, **opposites** are the same distance from 0 but on different sides of 0. **Integers** are the set of all whole numbers and their opposites.

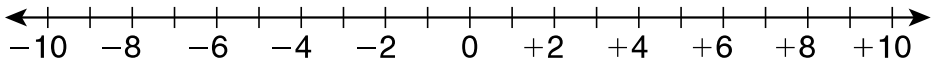
Graphing Integers
Graph −2 and its opposite on a number line.

Plot −2 on the number line.
What other number is the same distance from 0 as −2? _____
Plot the opposite of −2 on the number line.



The **absolute value** of an integer is its distance from 0 on a number line. The symbol for absolute value is | |.

Finding Absolute Value
Use the number line to find the absolute value of each integer.



A. |7| How many units from 0 is 7? _____ So, |7| = _____.

B. |−3| How many units from 0 is −3? _____ So, |3| = _____.