

Name: _____ Date: _____

Adding Integers

Rule 1: The sum of two positive integers will be positive.

$$2 + 3 = 5 \qquad 7 + 8 = 15 \qquad 12 + 14 = 26$$

Rule 2: The sum of two negative integers will be negative.

Add the absolute values of both numbers.

$$-6 + -7 = -13 \qquad -4 + -3 = -7 \qquad -18 + -15 = -33$$

Rule 3: The sum of integers with different signs will use the sign of the integer with the greatest absolute value.

Find the absolute value of both numbers;

then subtract the smaller from the larger number.

Equation	Absolute Values	Subtract	Sign of the Sum	Solve
$-5 + 8 = \underline{\quad}$	$ 5 , 8 $	$ 8 - 5 = 3 $	+	$-5 + 8 = 3$
$3 + -4 = \underline{\quad}$	$ 3 , 4 $	$ 4 - 3 = 1 $	-	$3 + -4 = -1$
$-9 + 7 = \underline{\quad}$	$ 9 , 7 $	$ 9 - 7 = 2 $	-	$-9 + 7 = -2$
$13 + -6 = \underline{\quad}$	$ 13 , 6 $	$ 13 - 6 = 7 $	+	$13 + -6 = 7$

*Hint: When adding a positive number, move right on the number line.
When adding a negative number, move left on the number line.*

Subtracting Integers

Rule: To subtract an integer, add its opposite.

Equation	Add the Opposite	Solution
$5 - 6 = \underline{\quad}$	$5 + -6 = \underline{\quad}$	-1
$5 - -6 = \underline{\quad}$	$5 + 6 = \underline{\quad}$	11
$-5 - 6 = \underline{\quad}$	$-5 + -6 = \underline{\quad}$	-11
$-5 - -6 = \underline{\quad}$	$-5 + 6 = \underline{\quad}$	1