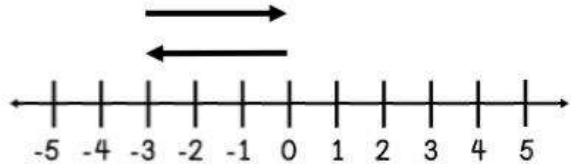Name _____

Date _____ Pd_____

SUBTRACTING INTEGERS

ADDITIVE INVERSE	• When a number and its _____ are added, the sum is _____. This represents the additive inverse. $-3 + 3 = 0$ -5 -4 -3 -2 -1 0 1 2 3 4 5 • This allows us to rewrite problems involving subtraction as addition problems.
SUBTRACTING INTEGERS	• Rewrite the problem to add the _____. Then, follow the rules for adding integers to solve the problem. Ex: $6 - 7 =$ $-9 - 11 =$ $-3 - (-8) =$ $6 + (-7) =$ $-9 + (-11) =$ $-3 + 8 =$

Use your understanding of the additive inverse to rewrite the problems below.

a. $-5 - 9$ → _____   d. $2 - (-10)$ → _____

b. $8 - (-3)$ → _____   e. $-13 - (-7)$ → _____

c. $14 - 20$ → _____   f. $-17 - 8$ → _____

Practice subtracting integers by rewriting the problem using the additive inverse. Then, find the **sum** of each column, checking your answer with the provided sum.
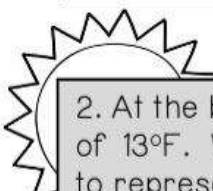
A	B	C	D
$9 - 6 =$	$7 - (-3) =$	$-11 - 5 =$	$-6 - (-8) =$
$4 - 7 =$	$1 - (-9) =$	$-5 - (-8) =$	$3 - 9 =$
$-7 - 12 =$	$2 - 6 =$	$11 - (-5) =$	$-10 - (-5) =$
SUM: −19	SUM: 16	SUM: 3	SUM: −9

Practice subtracting integers in the situations below.

1. Taylor has $27 in his checking account. He then writes a check for $35. What is the new balance of Taylor's bank account? Write and solve an equation to represent the situation.

I KNOW:	I NEED TO KNOW:
PLAN AND WORK:	SOLUTION:

2. At the beginning of the day, the temperature is -11°F. As the sun comes out, it warms to a high of 13°F. What is the difference in temperature throughout the day? Write and solve an equation to represent the situation.

I KNOW:	I NEED TO KNOW:
PLAN AND WORK:	SOLUTION:

Use your understanding of the additive inverse and subtracting integers to answer questions 3-5.

3. Use the hints to write the name of the student who found the missing number above the box:

$$-8 - 17 = ?$$ $$6 - (-22) = ?$$ $$-13 - 5 = ?$$

- Javier's missing number is seven more than Dominique's missing number.
- Belle's missing number is positive.

4. Which expression is equivalent to 12 − 17?	5. Which expression does not have a value of 3?
a. 17 − 12 b. 12 + 17 c. 12 + (−17) d. 12 − (−17)	a. −25 − (−28) b. 16 − 13 c. −45 − 42 d. −28 − (−31)

Summarize today's lesson: