

Warmup

1. Bob has \$40. He buys a watch for \$26.
He now has \$ _____

2. John received and paid a restaurant bill for \$150 before he realized it was not his bill. How much does he have after the restaurant refunds his money if he currently has \$500.
He now has \$ _____

3.

$4 + -2 = \underline{\quad}$

$-6 + -5 = \underline{\quad}$

$-8 + 3 = \underline{\quad}$

$-9 + 10 = \underline{\quad}$

To add integers
with the same signs:

with different signs:

4.

$4 - 2 = \underline{\quad}$

$7 - 8 = \underline{\quad}$

$5 - 1 = \underline{\quad}$

$9 - 6 = \underline{\quad}$

$4 + -2 = \underline{\quad}$

$7 + -8 = \underline{\quad}$

$5 + -1 = \underline{\quad}$

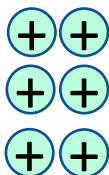
$9 + -6 = \underline{\quad}$

I. Subtracting Integers

$6 - 8 =$

Have \$6 pay \$8.

Using Counters



Using a Number Line



Calculate:

$4 - 7 =$

$3 - 4 =$

$6 - 10 =$

$2 - 8 =$

(Reminder: Blue questions allow you to practice as many times as you need to understand the concept.)

5.



$$2 - -7 =$$

Have \$2
need to be
refunded a
payment of \$7.

Using Counters



Using a Number Line



Solve each by adding the opposite:

$$4 - -3 =$$

$$-5 - +9 =$$

$$-6 - -11 =$$

$$+7 - +8 =$$

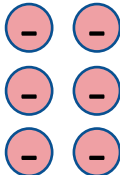
6.



$$-6 - -2 =$$

Owe \$6 and
need to be
refunded a
payment of \$2.

Using Counters



Using a Number Line



Solve each by adding the opposite:

$$-3 - -2 =$$

$$-6 - +3 =$$

$$-8 - -12 =$$

$$+10 - +4 =$$

7.



To subtract integers:

Change the subtraction to “adding the opposite”
Follow the addition rules

II. Algebraic Expressions with Integers

Evaluate each expression when
 $a=2$, $b=5$, and $c=-6$

$$b-10$$

$$a-b$$

$$c-a$$

Evaluate each expression when
 $a=-5$, $b=8$, and $c=-10$

$$b-a$$

$$a+c$$

$$c-b$$

9. Evaluate each expression for $x = -15$, $y = 7$, and $z = -9$

$$y + x =$$

$$y + z =$$

$$z - y =$$

$$x - y =$$

III. Word Problems with Integers

Calculate the Range

Number of Siblings		
# Siblings	Tally Marks	Frequency
1	###	5
2	###	5
3	III	3
4	### II	7
5	###	5
6	III	3

largest = _____

smallest = _____

largest-smallest = _____

The range is _____

The scale is _____

Range: The difference of the
largest value and smallest value

The record low temperature in New York was on February 9, 1934 in Stillwater Reservoir. The temperature was 52° below zero. The highest temperature recorded in New York was on July 9, 1936 in New York City at 106° . What is the range of record temperatures for New York?

To subtract integers:

Change the subtraction to “adding the opposite”
Follow the addition rules

Addition

Same Signs

Add the numbers
Keep the sign

$$+5 + +9$$

$$-7 + -5$$

The signs are the same
 $5 + 9 = 14$

The signs are the same
 $7 + 5 = 12$

The signs are positive,
the answer is positive

The signs are negative,
the answer is negative

$$+5 + +9 = +14$$

$$-7 + -5 = -12$$

Different Signs

Find the difference
Sign of the larger number

$$-5 + +9$$

$$-7 + +5$$

The signs are the different,
Find the difference
 $9 - 5 = 4$

The signs are the different,
Find the difference
 $7 - 5 = 2$

9 is larger, the answer
is positive

7 is larger, the answer
is negative

$$-5 + +9 = +4$$

$$-7 + +5 = -2$$

Subtraction

Change Subtraction to Addition

$$+5 - +9$$

$$2 - -4$$

Change subtraction to Addition
Change $+9$ to -9

Change subtraction to Addition
Change -4 to $+4$

$$+5 + -9 = -4 \quad (\text{Follow the Rules of Addition})$$

$$2 + +4 = +6$$

Work Space

IV. Practice

12	13
14	15
16	17
18	19
20	21