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$\qquad$ Block: $\qquad$

## Addition \& Subtraction Integer Modeling Lab

PURPOSE: To practice adding and subtracting integers with number lines and algebra tiles (charge method). SOL: 7.3

## NUMBER LINES

## Examples:



Use the below number lines to model the given ADDITION problems:

1. $4+3=$ $\qquad$

2. $7+(-3)=$ $\qquad$

3. $-6+(-3)=$

4. $-10+2=$ $\qquad$

5. $-2+(-6)=$
6. $-4+7=$ $\qquad$

7. $-7+(-1)=$ $\qquad$

8. $-6+8=$ $\qquad$

9. $10+(-8)=$

10. $1+(-5)=$ $\qquad$

11. $-3+0=$

12. $-9+(-1)=$ $\qquad$ $\stackrel{-10}{-9} \mid$
13. $-3+9=$ $\qquad$
$\stackrel{-10}{-9} \stackrel{-9}{-8} \mid$

## PART TWO - Algebra Tiles/Charge Method

## ADDING "SAME" SIGNS: Same sign KEEP the sign and ADD

## Example:


Key:
$\square=$ Positive
$\square=$ Negative

## Directions:

Draw tiles onto below mats in order to model given problems (you may use " + " signs for positives and "-" signs for negatives:

## Adding Two Positives:

1. Represent $2+5$ in the mat below. $2+5$ = $\qquad$
$\square$
2. Represent $9+0$ in the mat below. $9+0=$ $\qquad$
$\square$
3. Represent $8+3$ in the mat below. $8+3=$ $\qquad$

4. Represent $4+6$ in the mat below. $4+6=$ $\qquad$
5. What do you notice about all of your above answers?
6. In the space below, write a rule for adding two positive numbers.
7. Represent $-4+9$ in the mat to the right. Circle the zero pair(s).

How many zero pairs are in the problem? $\qquad$
What is the solution to $-4+9$ ? $\qquad$ $\square$
7. Represent $2+(-3)$ in the mat to the right. Circle the zero pair(s).

How many zero pairs are in the problem? $\qquad$
What is the solution to $2+(-3)$ ? $\qquad$
8. Represent $-2+8$ in the mat to the right. Circle the zero pair(s).

How many zero pairs are in the problem? $\qquad$
What is the solution to -2+8? $\qquad$
9. Represent $\mathbf{3 + ( - 5 )}$ in the mat to the right. Circle the zero pair(s).

How many zero pairs are in the problem? $\qquad$
What is the solution to $3+(-5)$ ? $\qquad$
10. Why are some answers positive and some answers negative?
11. How can you predict the sign of the sum (answer) before you actually "do the math"?
12. Write a rule that works for adding integers with different signs.
$\qquad$
DATE:

## "ADDITION INTEGER MODELING"

$\qquad$

Represent the following problems on the given number lines:

1. $-2+6=$ $\qquad$

2. $-4+-2=$ $\qquad$

3. $-5+3=$ $\qquad$
4. $2+5=$ $\qquad$
 $\begin{array}{lllllllllllllllllllll}-10 & -9 & -8 & -7 & -6 & -5 & -4 & -3 & -2 & -1 & 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10\end{array}$
5. $9+(-4)=$

6. $-3+(-4)=$ $\qquad$

7. $-8+(-1)=$ $\qquad$

8. $5+(-4)=$ $\qquad$

9. $3+6=$ $\qquad$
10. $-1+(-6)=$


## Algebra Tiles/Charge Method Addition

Directions: Draw tiles onto below mats in order to model the given problems:

1. $4+(-3)=$ $\qquad$
2. $-8+(-4)=$ $\qquad$
3. $7+5=$ $\qquad$
4. $-12+(3)=$ $\qquad$
5. $9+(-2)=$ $\qquad$
6. $-7+(-6)=$ $\qquad$
