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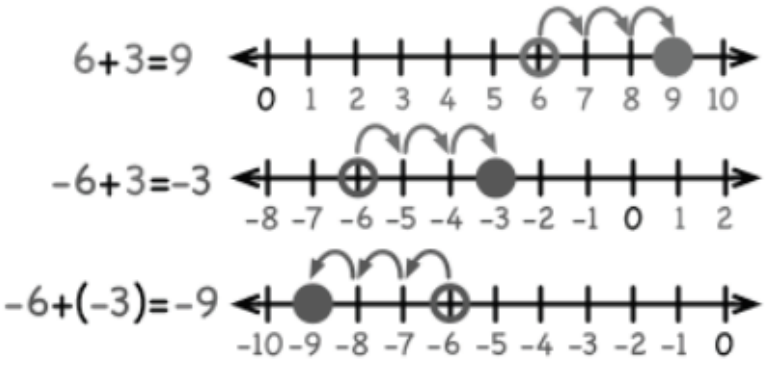
Addition & Subtraction Integer Modeling Lab

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

NUMBER LINES

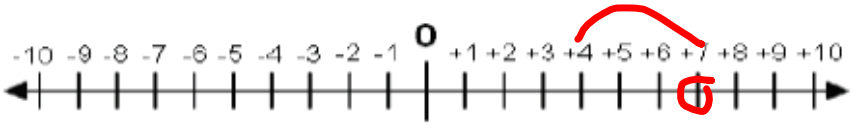
Examples:



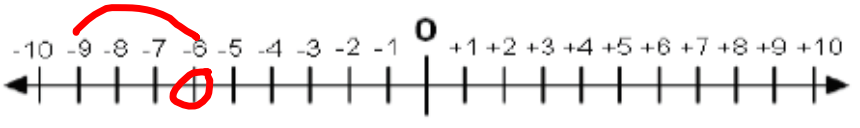
Use the below number lines to model the given ADDITION problems:

1. **4 + 3 =** 7

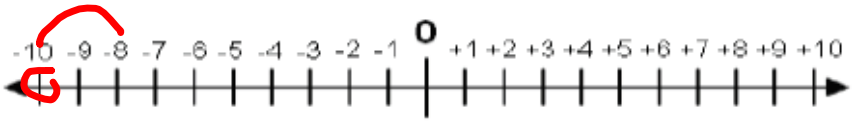
2. **7 + (-3) =** 4



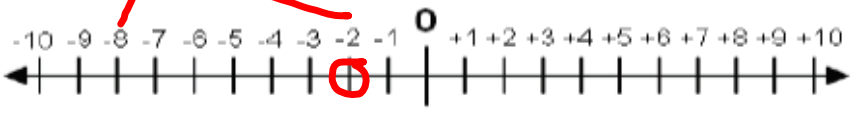
3. **-6 + (-3) =** -9



4. **-10 + 2 =** -8



5. **-2 + (-6)=** -



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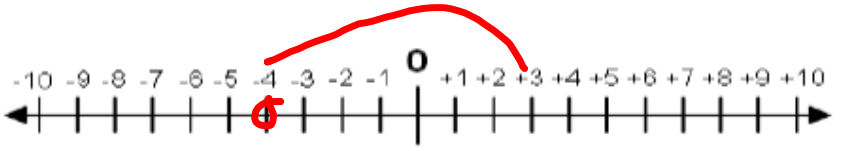
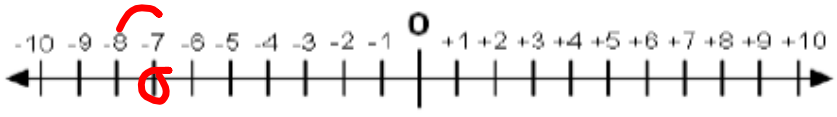
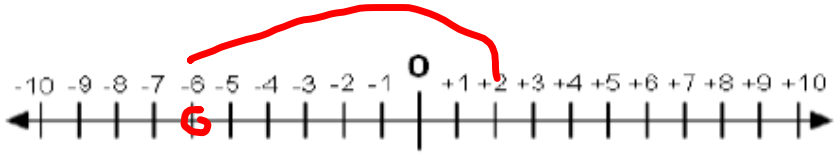
6. -4 + 7 = 3



7. -7 + (-1) = -8

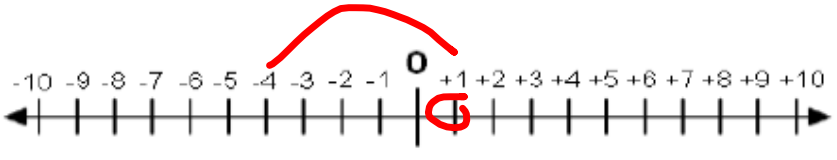


8. -6 + 8 = 2

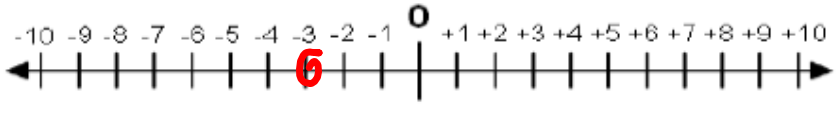


9. 10 + (-8) = 2

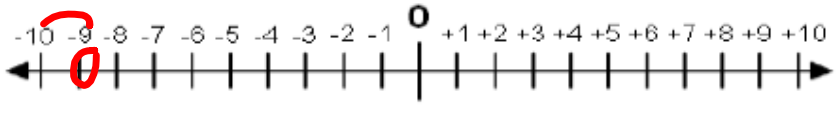
10. 1 + (-5)= -4



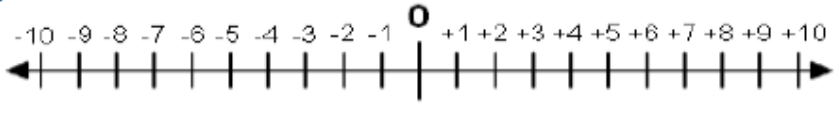
11. -3 + 0 = -3



12. -9 + (-1) = -10



13. -3 + 9 = _____



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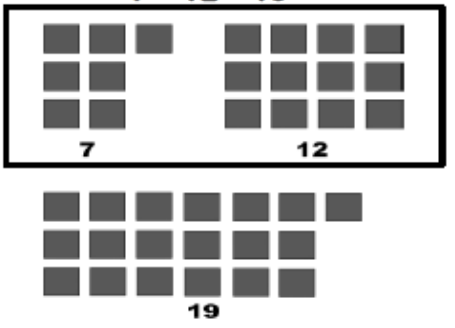
PART TWO – Algebra Tiles/Charge Method

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

Example: 7 + 12 = 19

COMBINE



Key:
□ = Positive
■ = 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 = _____

   +++++++

2. Represent 8 + 3 in the mat below.
   8 + 3= _____

   ++++++++++++

3. Represent 9 + 0 in the mat below.
   9 + 0 = _____

   +++++++++

4. Represent 4 + 6 in the mat below.
   4 + 6= _____

   ++++++++++

5. What do you notice about all of your above answers?

   All positive

6. In the space below, write a rule for adding two positive numbers.

   Positive plus positive will be positive

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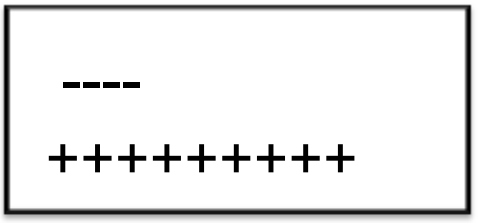
6. Represent **-4 + 9** in the mat to the right.
Circle the zero pair(s).

How many zero pairs are in the problem ? 4

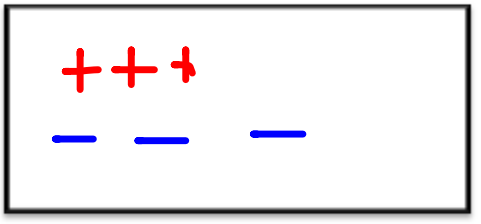
What is the solution to -4 + 9 ? 5



7. Represent **2 + (-3)** in the mat to the right.
Circle the zero pair(s).

How many zero pairs are in the problem ? 2

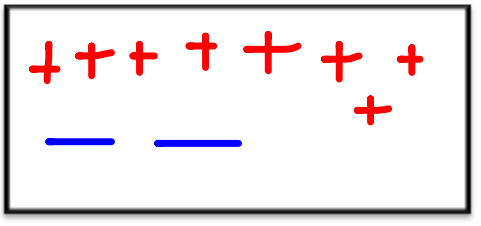
What is the solution to 2 + (-3) ? -1



8. Represent **-2 + 8** in the mat to the right.
Circle the zero pair(s).

How many zero pairs are in the problem ? 2

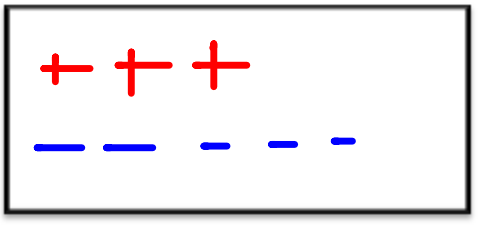
What is the solution to -2 + 8 ? 6



9. Represent **3 + (-5)** in the mat to the right.
Circle the zero pair(s).

How many zero pairs are in the problem ? 3

What is the solution to 3 + (-5) ? -2



10. Why are some answers positive and some answers negative?

The abounts of negative and positive are different

11. How can you predict the sign of the sum (answer) before you actually "do the math"?

Whichever sign has more

12. Write a rule that works for adding integers with different signs.

The sum will be positive if there are more positives

and it will be negative if there are more negatives

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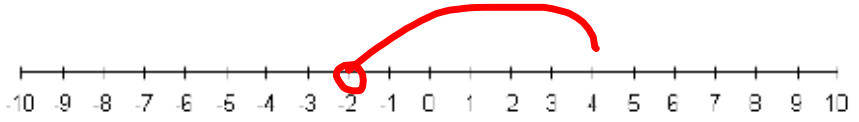
NAME:_____

DATE: ____/____/____

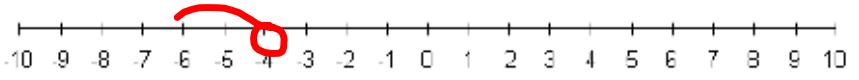
"ADDITION INTEGER MODELING"

Represent the following problems on the given number lines:

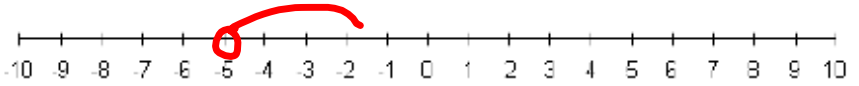
1. -2 + 6 = ... 4



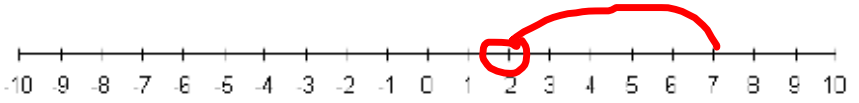
2. -4 + -2 = ... -6



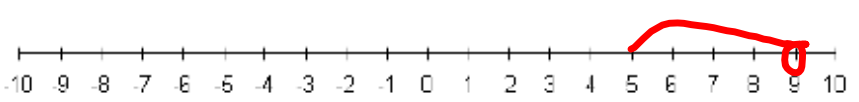
3. -5 + 3 = ... -2



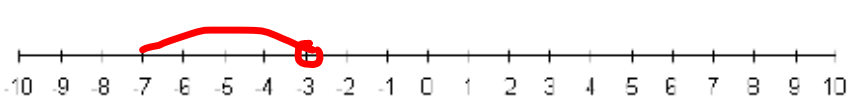
4. 2 + 5 = ... 7



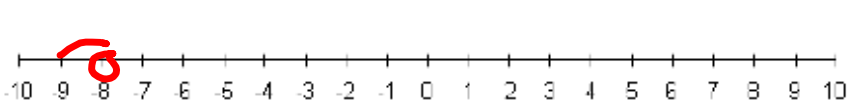
5. 9 + (-4) = ... 5



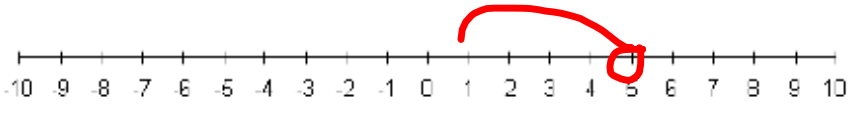
6. -3 + (-4) = ... -7



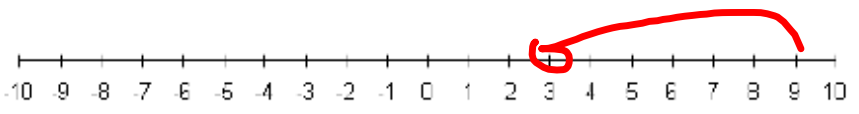
7. -8 + (-1) = ... -9



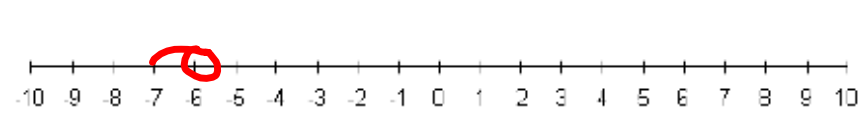
8. 5 + (-4) = ... 1



9. 3 + 6 = ... 9



10. -1 + (-6) = ... -7



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Algebra Tiles/Charge Method Addition

Key:
+ = Positive
- = Negative

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

1. 4 + (-3) = 1

++++

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2. -8 + (-4) = -12

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3. 7 + 5 = 12

+ + + + + + +

+ + + + +

4. -12 + (3) = -9

+ + +

5. 9 + (-2) = 7

+ + + + + + + + +

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6. -7 + (-6) = -13
