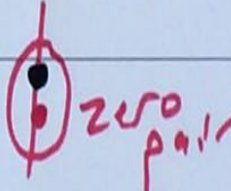
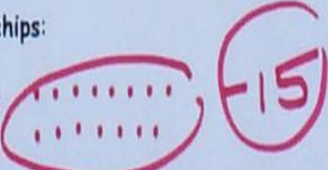
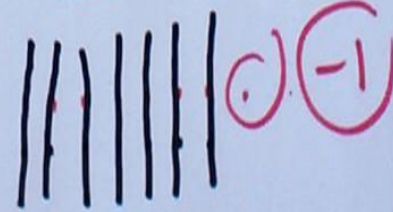
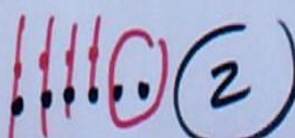


Mini Lessons #2 – Adding Integers (Unit 1 Integers)

Mini- Lesson #2 - Adding Integers

Learning Objectives: (What I should be able to do after the lesson!)

- ___ I can create zero pairs
- ___ I can use the chip model and number line model to represent addition problems and solve them
- ___ I can formulate rules that I can use to add integers

Refresh: What is an integer?	<ul style="list-style-type: none"> The <u>set</u> of <u>whole</u> numbers and their <u>opposites</u> <p>Examples:</p>
Refresh: What are opposites?	<ul style="list-style-type: none"> Numbers the <u>same</u> distance from <u>zero</u> on a number line but on the other side of <u>zero</u>. <p>Examples:</p>
Modeling integer addition using chip model: <div style="display: flex; align-items: center; margin-left: 20px;"> <div style="margin-right: 10px;">2</div> <div style="margin-right: 10px;">••</div> </div> <div style="display: flex; align-items: center; margin-left: 20px; margin-top: 10px;"> <div style="margin-right: 10px;">-4</div> <div>••••</div> </div>	<ul style="list-style-type: none"> Black chip = +1 Red chip = -1 <div style="display: flex; align-items: center; margin-left: 20px;">  </div> <p>So...</p> <p style="margin-left: 40px;">1 black chip + 1 red chip = 0</p> <p>Model with chips:</p> <p>1) $-8 + -7$ </p> <p>2) $-8 + 7$ </p> <p>3) $-4 + 6$ </p>

Practice Adding Integers

Directions: Make a chip board and give the number sentence with the answer.

1) $3 + 2 = 5$



2) $-2 + -2 = -4$



3) $-6 + -3 = -9$



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




5) $-5 + -1 = -6$



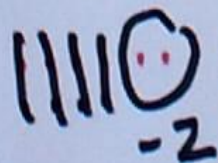
6) $-2 + -8 = -10$



7) $-4 + 4 = 0$



8) $-6 + 4 = -2$



9) $-3 + 6 = 3$



10) $2 + -8 = -6$



11) $7 + -5 = 2$



12) $-2 + 5 = 3$



13) $7 + -9 = -2$



14) $-4 + 1 = -3$



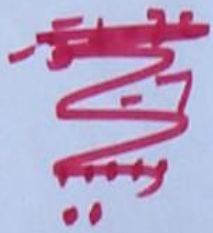
15) $-5 + 5 = 0$



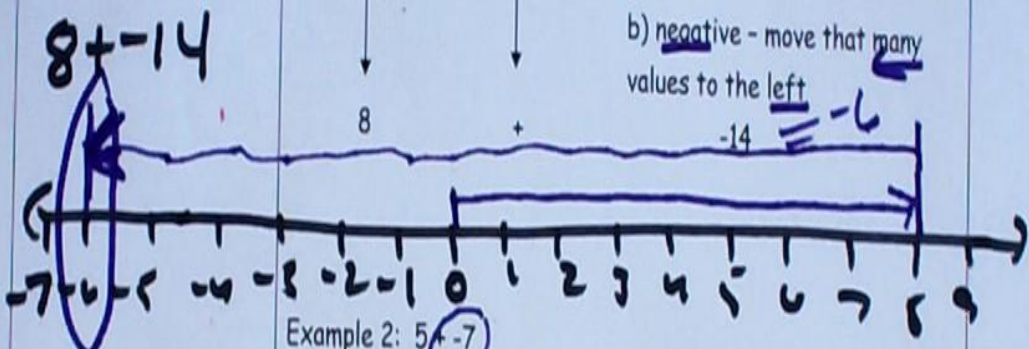
16) $7 + -7 = 0$



17) $10 + -5 = 5$



Model integer addition using a number line:



Example 1:

Starting value

ADD

If second value is...

a) positive - move that many values to the right →

OR

b) negative - move that many values to the left ←

8

+

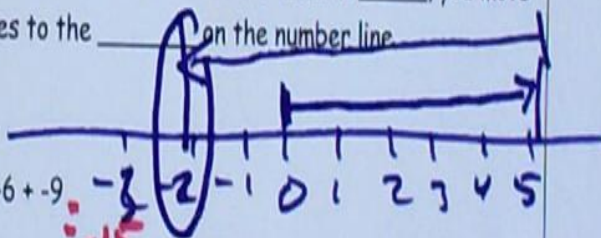
-14

-6

Example 2: $5 + -7$

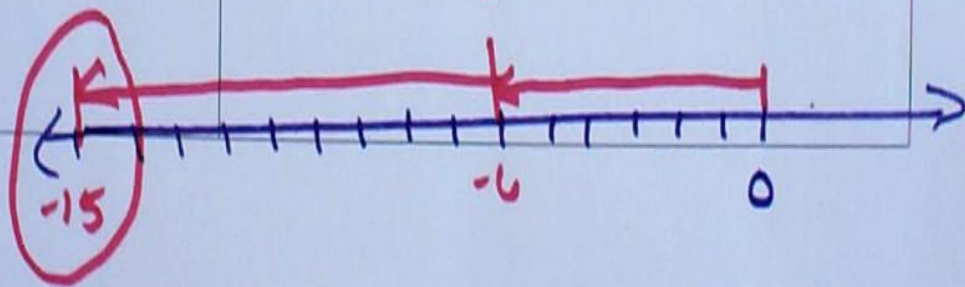
- Start at the beginning value, which is 5
- Add the second value. Since the value is -7, you move 7 values to the left on the number line

-2



Example 3: $-6 + -9$

-15



RULES FOR ADDING INTEGERS

Adding 2 Positive Integers	Adding 2 Negative Integers	Adding 1 Positive and 1 Negative Integer
$3 + 4$ <ul style="list-style-type: none"> • Add • positive answer 	$-1 + -7 = -8$ <ul style="list-style-type: none"> • Add the absolute value • Keep sign negative 	$-6 + 4 = -2$ $8 + -2 = 6$ $-1 + 5 = 4$ <ul style="list-style-type: none"> • subtract the absolute value • take the sign off what there's more of (greatest abs. value)
<p>What do you notice about these two types of problems?</p> <p style="text-align: center;">—</p>	<p style="text-align: center;">—</p>	
<p>We will call these types of problems</p> <p style="text-align: center;"><u>like signs</u> same signs</p>	<p>We will call these types of problems</p> <p style="text-align: center;"><u>different</u> signs unlike signs</p>	