## 9.30.2011

## Multiplying and Dividing Integers

## Do Now:

1. 
$$3(8-2) + 12$$
  
 $3(6) + 12$   
 $18 + 12 = 30$ 

2. 
$$\frac{17-12}{5} + (4-2)$$
$$\frac{5}{5} + (2)$$
$$1+2=3$$

3. 
$$14 + (-11) = 3$$

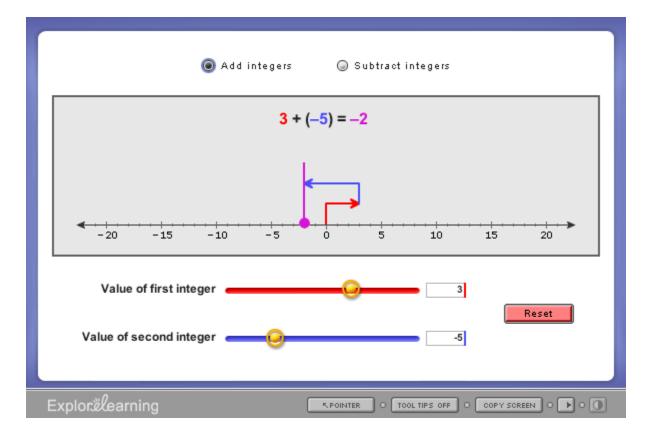
4. 
$$9 - (-8) = 17$$

5. Draw a visual solution to the following two problems.

b. 3+(-5)



removing 1 negative leaves 5 negatives



## **Multiplying and Dividing Integers**

<u>Inverse Operations Definition</u>: Inverse operations undo each other. Multiplication and division are inverse operations. Addition and subtraction are also inverse operations.

Ex. Since  $6 \div 3 = 2$ , we know that  $2 \cdot 3 = 6$ 

Rules for Multiplying and Dividing Integers

• Multiplication and division are performed as always with following rules for sign

0	(negative)(negative)=(positive)	(negative)÷(negative)=(positive)
0	(positive)(positive)=(positive)	(positive)÷(positive)=(positive)
0	(negative)(positive)=(negative)	(negative)÷(positive)=(negative)
0	(positive)(negative)=(negative)	(positive)÷(negative)=(negative)