Name _____

Period _____

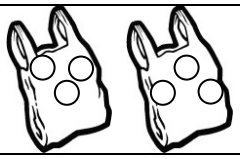
MULTIPLYING INTEGERS

How Multiplication May Be Written

- **3 x 2**
- **(3)(2)**
- **3•2**
- **3(2)**

Now the story way of knowing how to multiply integers

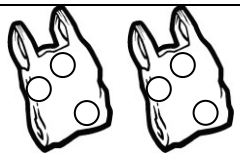
- When we see a multiplication problem, we can easily turn it into a word problem.
  - 2 x 3 could be 2 bags with 3 stones in each

	Here we would have a total of 6 stones. Therefore **2 x 3 = 6**.

- Since we now are dealing with positive and negative numbers, our word problem will get a little bit more complex.
  - When we look at the first number, if we see a positive number (+), it means we are adding the bags. If we see a negative number (-), it means we are removing the bags.
  - When we look at the second number, if we see a positive number (+), it means the stones are hot. If we see a negative number (-), it means the stones are cold.

    - Remember: When you add hot stones, the temperature goes up. When you remove hot stones, the temperature goes down.
    - Remember: When you add cold stones, the temperature goes down. When you remove cold stones, the temperature goes up.

Here we have some samples:

Math Problem		
(-2)(+3)		- Look at the first number. It is _____, so we are _____ the stones. - Look at the second number. It is _____, so the stones are _____.
Here's our situation. We are _____ 2 bags with 3 _____ stones in each. The water temperature goes _____. My final answer is _____.		

Name _____

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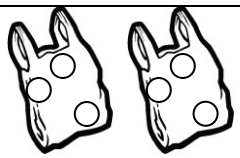
Math Problem		
(-2)(-3)		❑ Look at the first number. It is _____, so we are _____ the stones. ❑ Look at the second number. It is _____, so the stones are _____.
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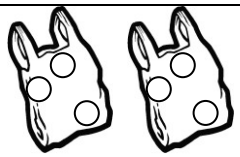
Math Problem		
(+2)(-3)		❑ Look at the first number. It is _____, so we are _____ the stones. ❑ Look at the second number. It is _____, so the stones are _____.
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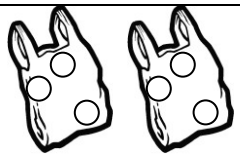
Math Problem		
(+2)(+3)		❑ Look at the first number. It is _____, so we are _____ the stones. ❑ Look at the second number. It is _____, so the stones are _____.
Here's our situation. We are _____ 2 bags with 3 _____ stones in each. The water temperature goes _____. My final answer is _____.		

Multiplication rules

- ❑ (positive) x (positive) = _____
- ❑ (positive) x (negative) = _____
- ❑ (negative) x (positive) = _____
- ❑ (negative) x (negative) = _____

Also works for division

- ❑ (positive) ÷ (positive) = _____
- ❑ (positive) ÷ (negative) = _____
- ❑ (negative) ÷ (positive) = _____
- ❑ (negative) ÷ (negative) = _____

Name _____

Period _____

MULTIPLYING INTEGERS (ANSWER KEY)

How Multiplication May Be Written

- **3 x 2**
- **(3)(2)**
- **3•2**
- **3(2)**

Now the story way of knowing how to multiply integers

- When we see a multiplication problem, we can easily turn it into a word problem.
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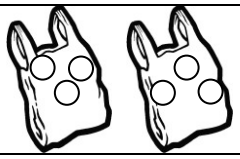	Here we would have a total of 6 stones. Therefore **2 x 3 = 6**.

- Since we now are dealing with positive and negative numbers, our word problem will get a little bit more complex.
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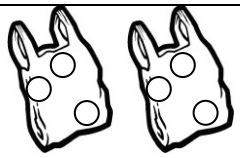
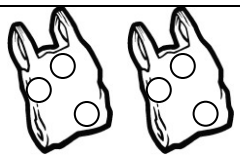
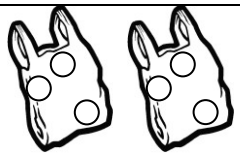
Here we have some samples:

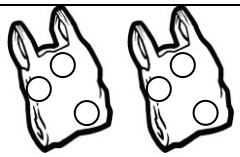
Math Problem		
(-2)(+3)		- Look at the first number. It is negative, so we are removing the stones. - Look at the second number. It is positive, so the stones are hot.
Here's our situation. We are removing 2 bags with 3 hot stones in each. The water temperature goes down. My final answer is -6.		

Name _____

Period _____

Math Problem		
(-2)(-3)		❑ Look at the first number. It is negative, so we are removing the stones. ❑ Look at the second number. It is negative, so the stones are cold.
Here's our situation. We are removing 2 bags with 3 cold stones in each. The water temperature goes up. My final answer is +6.		

Math Problem		
(+2)(-3)		❑ Look at the first number. It is positive, so we are adding the stones. ❑ Look at the second number. It is negative, so the stones are cold.
Here's our situation. We are adding 2 bags with 3 cold stones in each. The water temperature goes down. My final answer is -6.		

Math Problem		
(+2)(+3)		❑ Look at the first number. It is positive, so we are adding the stones. ❑ Look at the second number. It is positive, so the stones are hot.
Here's our situation. We are adding 2 bags with 3 hot stones in each. The water temperature goes up. My final answer is +6.		

Multiplication rules

- ❑ (positive) x (positive) = positive
- ❑ (positive) x (negative) = negative
- ❑ (negative) x (positive) = negative
- ❑ (negative) x (negative) = positive