Name _____
Period _____

MULTIPLYING INTEGERS INTRO PACKET

Activity #1: Changing Multiplication Into Repeating Addition

Rewrite each multiplication problem as a repeating addition problem, find the sum, write out in words what the problem means, and write a story problem that could be connected to the multiplication problem.

a) 4 (-5) _____

_____

_____

_____

b) 3 (12) _____

_____

_____

_____

c) 6 (-2) _____

_____

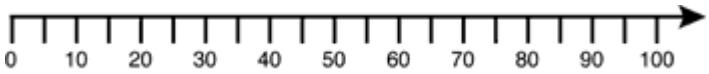
_____

_____

Activity #2: Using a Number Line to Show Multiplication

Use a number line to show each multiplication problem. Also, write down in words what the multiplication problem means.

a) 4 x 20



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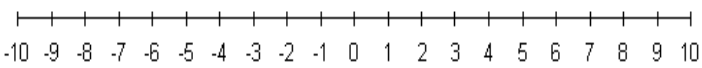
b) 3 x (-2)



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Name _____
Period _____

Activity #3: Using Patterns to Multiply Integers

2 x 5	
1 x 5	
0 x 5	
-1 x 5	
-2 x 5	
-3 x 5	

2 (4)	
1 (4)	
0 (4)	
-1 (4)	
-2 (4)	

2 (-5)	
1 (-5)	
0 (-5)	
-1 (-5)	
-2 (-5)	
-3 (-5)	

What do you notice about multiplying integers? _____
_____
_____
_____
_____
_____

Activity #4: Integers Multiplication Table

Complete the multiplication table. Look for patterns.

x	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
-3							
-2							
-1							
0							
1							
2							
3							

What patterns do you see? _____
_____
_____

Name _____
Period _____

Activity #5: Multiplying Integers (Using Rules)

RULES FOR MULTIPLYING INTEGERS

P × P = P	2 × 3 = 6
P × N = N	2 × (–3) = –6
N × P = N	–2 × 3 = –6
N × N = P	–2 × (–3) = 6

Summary: Two signs same = Positive

Two signs different = Negative

a) 2(-6) _____

b) -5(3) _____

c) -6(-7) _____

d) 12(-3) _____

e) (-3)(-9) _____

f) (-12)(10) _____

Rules for multiplying more than two numbers

Even number of negative signs = Positive

Odd number of negative signs = Negative

a) -4(8)(-2) _____

b) -2(5)(-6)(-3) _____

Name _____
Period _____

MULTIPLYING INTEGERS INTRO PACKET (ANSWER KEY)

Activity #1: Changing Multiplication Into Repeating Addition

Rewrite each multiplication problem as a repeating addition problem, find the sum, write out in words what the problem means, and write a story problem that could be connected to the multiplication problem.

d) 4 (-5) (-5) + (-5) + (-5) + (-5) = -20

4 groups of negative five

Sample: Sarah lent five dollars to four of her friends. How did the value of her money change?

e) 3 (12) (12) + (12) + (12)

3 groups of positive twelve

Sample: Jerome bought 3 dozen eggs. How many eggs did he buy?

f) 6 (-2) (-2) + (-2) + (-2) + (-2) + (-2) + (-2)

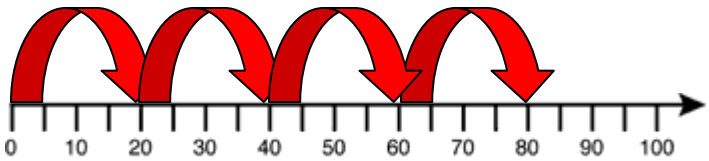
6 groups of negative two

Sample: The temperature dropped by two degrees every hour for six hours. How did the temperature change all together in those six hours?

Activity #2: Using a Number Line to Show Multiplication

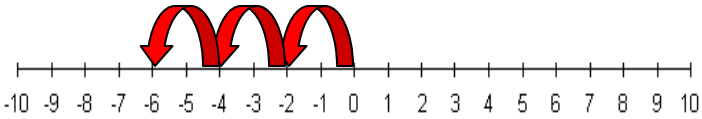
Use a number line to show each multiplication problem. Also, write down in words what the multiplication problem means.

c) 4 x 20



4 groups of positive twenty

d) 3 x (-2)



3 groups of negative two

Name _____
Period _____

Activity #3: Using Patterns to Multiply Integers

2 x 5	10
1 x 5	5
0 x 5	0
-1 x 5	-5
-2 x 5	-10
-3 x 5	-15

-3 (-5)	15
2 (4)	8
1 (4)	4
0 (4)	0
-1 (4)	-4
-2 (4)	-8

2 (-5)	-10
1 (-5)	-5
0 (-5)	0
-1 (-5)	5
-2 (-5)	10

What do you notice about multiplying integers? Answers will vary. Sample ideas: Table 1 decreases by 5. Table 2 increases by 5. Table 3 decreases by 4. A negative times a negative is a positive. A positive times a negative is a negative.

Activity #4: Integers Multiplication Table

Complete the multiplication table. Look for patterns.

x	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**
-3	9	6	3	0	-3	-6	-9
-2	6	4	2	0	-2	-4	-6
-1	3	2	1	0	-1	-2	-3
0	0	0	0	0	0	0	0
1	-3	-2	-1	0	1	2	3
2	-6	-4	-2	0	2	4	6
3	-9	-6	-3	0	3	6	9

What patterns do you see? Answers vary. Sample ideas: Each row shows repeating addition. There are four quadrants---two with only positive values and two with only negative values.

Name _____
Period _____

Activity #5: Multiplying Integers (Using Rules)

RULES FOR MULTIPLYING INTEGERS

P × P = P	2 × 3 = 6
P × N = N	2 × (–3) = –6
N × P = N	–2 × 3 = –6
N × N = P	–2 × (–3) = 6

Summary: Two signs same = Positive

Two signs different = Negative

g) 2(-6) -12

h) -5(3) -15

i) -6(-7) 42

j) 12(-3) -36

k) (-3)(-9) 27

l) (-12)(10) -120

Rules for multiplying more than two numbers

Even number of negative signs = Positive

Odd number of negative signs = Negative

c) -4(8)(-2) 64

d) -2(5)(-6)(-3) -180

Name _____

Period _____