

# **Multiplying and Dividing Integers**

**September 6, 2016**

**Mr. Collin**



# Warmup

Evaluate the following:

$$1) 5 + (-3) = 2$$

$$2) 7 - 9 = 7 + (-9) = -2$$

$$3) -4 - 2 = -4 + (-2) = -6$$

$$4) -3 + 10 = 7$$

$$5) -1 + (+4) = 3$$



# Understanding Multiplication

- In your notes, you will make a multiplication table
- This one will include negative numbers as well as positive



# Understanding Multiplication

	-4	-3	-2	-1	0	1	2	3	4
-4	16	12	8	4	0	-4	-8	-12	-16
-3	12	9	6	3	0	-3	-6	-9	-12
-2	8	6	4	2	0	-2	-4	-6	-8
-1	4	3	2	1	0	-1	-2	-3	-4
0	0	0	0	0	0	0	0	0	0
1	-4	-3	-2	-1	0	1	2	3	4
2	-8	-6	-4	-2	0	2	4	6	8
3	-12	-9	-6	-3	0	3	6	9	12
4	-16	-12	-8	-4	0	4	8	12	16



# Now You Try

Multiply the following in your notes:

1)  $4(-5)$   $-20$

2)  $3 \times 7$   $21$

3)  $-9 \cdot 5$   $-45$

4)  $-11(-4)$   $44$

5)  $-13(3)$   $-39$

6)  $6 \times (-6)$   $-36$

7)  $(-10)^2$

8)  $15 \cdot (-3)$   $-45$

$-10 \cdot -10 = 100$

# **Multiplying and Dividing Integers**

**September 7/8, 2016**

**Mr. Collin**



# Warmup

Evaluate the following:

$$1) 4(-6) -24$$

$$4) -9(-2) 18$$

$$2) -10 \cdot 5 -50$$

$$5) (-7)^2 49$$

$$3) -7 \cdot (-5) 35$$

$$6) (-10)^3$$

$$-1000$$



# Trade and Grade

- If you received a stamp, you will trade your homework with the person sitting next to you (or someone else near you)
- When you get another person's homework, write your name in the "Corrected By" line at the bottom





# Trade and Grade

$$1) \quad -3$$

$$2) \quad -15$$

$$3) \quad 22$$

$$4) \quad -1$$

$$5) \quad -30$$

$$6) \quad -7$$

$$7) \quad -7$$

$$8) \quad -1$$

$$9) \quad -7$$

$$10) \quad 5$$

$$11) \quad -9$$

$$12) \quad 4$$

$$13) \quad -4$$



# Trade and Grade

- If five or more answers are correct and there is a stamp on the page, write “4” in the score box
- If four or fewer answers are correct, then write “2” in the score box



# Division

- Division is very much the same as multiplication
  - If you divide numbers with same sign, the answer is positive
  - If you divide numbers with opposite sign, the answer is negative



# Division

- We will usually use a fraction bar for division
  - Fractions are just division
- So, instead of  $15 \div 5$ , we will use  $\frac{15}{5}$



# Let's Try Some Together

- Let's divide a few numbers:

$$\begin{array}{r} -18 \\ \hline 3 \\ -6 \end{array}$$

$$\begin{array}{r} 25 \\ \hline -5 \\ -5 \end{array}$$

$$\begin{array}{r} -40 \\ \hline -8 \\ 5 \end{array}$$



# Now You Try

Divide the following:

$$1) \frac{10}{-2} = -5$$

$$2) \frac{24}{-2} = -12$$

$$3) \frac{-100}{-5} = 20$$

$$4) \frac{-45}{5} = -9$$

$$5) \frac{-20}{10} = -2$$

$$6) \frac{-60}{-3} = 20$$



# Practice Test

- I will put you in groups of three or four
- All of you will work on the practice test together
- If you are not working together, I will make you start over from scratch



# Practice Test

- I will collect them at the end of the period
- I will select at random one test from the group and grade that one
  - The entire group gets the same grade
- If you finish early, spend the rest of the period quizzing each other



# **Test Review**

**September 9, 2016**

**Mr. Collin**



# Warmup

Evaluate the following:

$$1) \quad 12(-2) \quad -24$$

$$4) \quad \frac{-18}{2} \quad -9$$

$$2) \quad \frac{-24}{-6} \quad 4$$

$$5) \quad (-1)^3 \quad -1$$

$$3) \quad -5 \cdot 5 \quad -25$$

$$6) \quad \frac{22}{-11} \quad -2$$



# Trade and Grade

- If you received a stamp, you will trade your homework with the person sitting next to you (or someone else near you)
- When you get another person's homework, write your name in the "Corrected By" line at the bottom



# Trade and Grade

1)  $-5$

2)  $4$

3)  $-13$

4)  $5$

5)  $-10$

6)  $-6$

7)  $-27$

8)  $12 + 11$

9)  $-6 + (-18)$

10)  $-14 + 5$

11)  $19 + (-31)$

12)  $7 + 13$

13)  $-3 + 16$

14)  $5 + 14$

15)  $-8 + (-23)$



# Trade and Grade

- If eight or more answers are correct and there is a stamp on the page, write “4” in the score box
- If seven or fewer answers are correct, then write “2” in the score box



# Test Topics

- I will give you the topics of the test so you can prepare yourself
- Write these in your planner



# Test Topics

- Absolute Values
- Definition and Examples of Integers
- Adding Positive & Negative Numbers
- Subtracting Positive & Negative Numbers
- Multiplying Positive & Negative Numbers
- Dividing Positive & Negative Numbers
- Squares and Cubes of Negative Numbers
- Substituting for Variables