Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_

Mr. Tallman Math 7

**Review for Test 1 – Integers and Number Properties**

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| **Rules for Adding, Subtracting, Multiplying and Dividing Integers** |
| Rule for… | Rule | Example(s) |
| Adding Integers with the same sign: | Add the numbers, keep the common sign. | $$6+3=9$$$$-5+\left(-3\right)=-8$$ |
| Adding Integers with different signs:  | Subtract the numbers, keep the sign of the number with the higher absolute value. | $$-5+3=-2$$$$-2+4=2$$$$6+\left(-1\right)=5$$$$10+\left(-12\right)=-2$$ |
| Subtracting Integers: | Keep the first number, change the subtraction to addition, and change the sign of the second number. Then follow addition rules.\*\*Think Keep, Change, Change\*\* | $$-9-12$$$$-9+\left(-12\right)=-21$$$$7-(-10)$$$$7+10=17$$ |
| Multiplying and Dividing Integers (same sign):  | Find the product/quotient, then make the product/quotient positive. | $$4∙8=32$$$$\frac{-16}{-8}=3$$ |
| Multiplying and Dividing Integers (different signs):  | Find the product/quotient, then make the product/quotient negative. | $$8\left(-6\right)=-48$$$$\frac{28}{-4}=-7$$ |

Order of operations (PEMDAS) tells us the order in which we have to evaluate expressions.

 **P\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \*\*REMEMBER: Absolute Value acts like Parenthesis\*\***

 **E\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **M\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ S\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**For questions 1-6, use the word bank to state which property is being illustrated.**

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| **Word Bank** |
| Additive Inverse | Multiplicative Identity | Distributive Property | Commutative Property of Multiplication | Commutative Property of Addition | Associative Property of Multiplication |
| 1) $7∙\left(8∙1\right)=\left(7∙8\right)∙1$ | 2) $\frac{1}{2}∙1=\frac{1}{2}$ |
| 3) $-13+13=0$ | 4) $8\left(7+6\right)=8\left(7\right)+8(6)$ |
| 5) $12∙4=4∙12$ | 6) $9+\frac{1}{2}=\frac{1}{2}+9$ |

7) A football team gains 6 yards on the first play, loses 3 yards on the second play, loses 1 yard on the third play and gains 10 yards on the forth play. What is the team’s overall gain or loss for all four plays?

8) Which of the following is NOT true about the equation $=2,156+(-1,843)$ ?

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| A) The sum will be a negative number. | B) The sum will be 2,156 | C) The sum will be a positive number | D) The equation is the same as $x=-1,843+2,156$ |

9) The temperature in Merrick, NY on Friday was 82$°$ during the day. The temperature changed by $-21°$ overnight. What was the temperature Saturday morning?

10) Jeanie was solving the equation below. Describe the error that Jeanie made.

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$$x-7=12$$

 -7 -7

 X = 5

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**Use integer rules to answer the following problems:**

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| 11) $-24÷\left(-2\right)=$\_\_\_\_\_\_\_\_\_\_\_\_ | 12) $-3(-6)(-2)$=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 13) $-20-5=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 14) $13+\left(-8\right)=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Evaluate the following expressions when** $x=-5, y=3 and z=-6$

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| 15) $z+x$ | 16) $x-y∙z÷y$ | 17) $\left|y+z\right|-x∙y$ |

**Solve and Check.**

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| 18) $\frac{x}{-3}=7$Check: | 19) $p-6=-12$Check:  | 20) $-42=-7h$Check:  | 21) $-5+x=-10$Check:  |

**Complete each statement using <, >, or =**.

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| 22) $\left|-7\right|$\_\_\_\_\_\_\_\_\_\_\_$\left|-2\right|$ | 23) $0$\_\_\_\_\_\_\_\_\_\_\_\_\_ $\left|-9\right|$ | 24) $12$\_\_\_\_\_\_\_\_\_\_\_\_\_\_ $\left|-12\right|$ |