**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_**

**Study Guide**

**Topic 4 Review**

**Opposites**

|  |  |  |
| --- | --- | --- |
| 1) The opposite of $-4$ | 2) The opposite of $-\frac{2}{3}$ | 3) The opposite of 3.45 |
| 4) The opposite of 289 | 4) What is another word for opposite? | 5) What happens when you add a pair of opposites together? |

**Absolute Value**

|  |  |  |
| --- | --- | --- |
| 1) $\left|-4\right|$ | 2) $\left|19\right|$ | 3) $\left|-5.7\right|$ |
| 4) $\left|1\frac{1}{2}\right|$ | 5) $\left|9-4\right|$ | 6) $\left|-4+1\right|$ |
| 7) Define absolute value:  |

**Adding Rational Numbers**

|  |  |
| --- | --- |
| 1) $-5+(-9)$ | 2) $-7+5$ |
| 3) $18+2.5$ | 4) $-\frac{2}{3}+\frac{1}{8}$ |
| 5) $-2\frac{3}{4}+(-1\frac{4}{5})$ | 6) $3\frac{1}{3}+(-\frac{5}{6})$ |
| 7) $-200+25$ | 8) $-6-4$ |
| 9) $-5+\left(-13\right)$ | 10) $1.23-(-2.987)$ |

**Subtracting Rational Numbers**

|  |  |
| --- | --- |
| 1) $19-34$ | 2) $-99-(-36)$ |
| 3) $-100-100$ | 4) $-9-14$ |
| 5) $8-(-9)$ | 6) $-6-13$ |
| 7) $1-0.5$ | 8) $4\frac{1}{3}-2\frac{5}{7}$ |
| 9) $\frac{7}{8}-3\frac{4}{5}$ | 10) $-\frac{1}{4}-(-\frac{1}{6})$ |

**Graphing Equations**

|  |
| --- |
| 1. Graph the following equation on the number line below and solve: $-5+\left(-2\right)$

 |
| 1. Graph the following equation on the number line below and solve: $7+(-11)$

 |
| 1. Graph the following equation on the number line below and solve: $-2-4$

 |
| 1. Determine what equation best represents the graph below:

 |
| 1. Determine what equation best represents the graph below:

 |
| 1. Determine what equation best represents the graph below:

 |

**Problem Solving**

|  |
| --- |
| 1) Describe the difference between whole numbers and integers |
| 2) For a negative number, *x*, is the absolute value of *x* a positive number or a negative number? Explain. |
| 3) Identify whether each statement below is true or false:* If a number is a positive integer, then the number is a whole number. \_\_\_\_\_\_\_
* If a number is negative, then its absolute value is negative. \_\_\_\_\_\_\_\_\_\_\_\_
* If a number is positive, then its opposite is positive. \_\_\_\_\_\_\_\_\_\_\_\_
 |
| 4) Without actually adding, how can you tell if the sum of two numbers will be zero? Give an example. |
| 5) In four plays a football team gains 3 yards, loses 7 yards, loses 2 yards, and gains 15 yards. How many yards did the team gain after four plays? |

**Distance on a number line**

Represent on a number line and find the answer.

|  |  |
| --- | --- |
| The distance between 9 and -3 | The distance between -2 and -8 |

**Properties**

Name the property or provide an expression given the property.

|  |  |
| --- | --- |
| 1) $-4+\left(-5\right)=$ $-5+\left(-4\right)$ | 2) $\left(54+62\right)+28=$ASSOSIATIVE |
| 3) $1+4+0 =$ 5 | 4) $\left(-2\right)+ \\_\\_\\_\\_\\_\\_\\_=$ 0INVERSE |
| 5) $9+\left(-6+4\right)+5=$ $9\pm -6+\left(4+5\right)$ | 1. $15+43+10=$

COMMUTATIVE |
| 7) $10+(25+94)$ = ASSOCIATIVE | 8) $1\frac{1}{4}+0= 1\frac{1}{4} $ |