

## Ln-Rational Numbers Grade: VIII

### I. Fill in the blanks

- \_\_\_\_\_ has no reciprocal.
- There are \_\_\_\_\_ numbers of a rational numbers between any two numbers.
- The product of a number and its multiplicative inverse is \_\_\_\_\_.
- Sum of a number and its negative is \_\_\_\_\_.
- \_\_\_\_\_ is the multiplicative identity.
- \_\_\_\_\_ is the additive identity.
- Additive inverse of  $\frac{3}{7}$  is \_\_\_\_\_.
- Multiplicative inverse of -2 is \_\_\_\_\_.
- The numbers \_\_\_\_\_ and \_\_\_\_\_ are their own reciprocals.

### II. Find the value of the following:-

i)  $\frac{-21}{25} \times \frac{15}{-49} \times \frac{-35}{9}$

ii)  $\frac{-43}{45} \times \left(\frac{-8}{5} + \frac{3}{5}\right)$

iii)  $\frac{-21}{15} + \frac{7}{25} - \left(\frac{-4}{25}\right)$

iv)  $\frac{-72}{45} \div \frac{32}{25}$

III. Verify  $-(-x) = x$  by taking  $\frac{-2}{5}$ .

IV. Represent  $\frac{-3}{7}$  and  $\frac{9}{7}$  on a number line.

V. State the property used in the following :-

i)  $\frac{-3}{58} \times \frac{7}{8} = \frac{7}{8} \times \frac{-3}{58}$

ii)  $\left(\frac{-2}{3} + \frac{5}{7}\right) + \left(\frac{3}{5}\right) = \frac{-2}{3} + \left(\frac{5}{7} + \frac{3}{5}\right)$

$$\text{iii) } \frac{-7}{9} \left( \frac{3}{25} + \frac{2}{7} \right) = \frac{-7}{9} \times \frac{3}{25} + \frac{-7}{9} \times \frac{2}{7}$$

$$\text{iv) } \frac{-5}{19} + \frac{3}{57} = \frac{3}{57} + \frac{-5}{19}$$

$$\text{v) } \frac{-37}{49} \times \frac{49}{-37} = 1$$

VI. Using suitable Property evaluate the following.

$$\text{i) } \frac{-3}{5} \times \frac{7}{9} + \frac{2}{5} \times \frac{7}{9}$$

$$\text{ii) } \frac{-14}{24} \times \frac{-13}{14} + \frac{14}{25} \times \frac{-1}{14}$$

$$\text{iii) } \frac{3}{7} \times \frac{-2}{5} + \frac{3}{7} \times \frac{-3}{5}$$

$$\text{iv) } \frac{2}{21} \times \frac{-3}{13} + \frac{-7}{9} - \frac{2}{21} \times \frac{10}{13}$$

VII. Find Five rational numbers between

$$\text{i) } 0 \text{ and } 1$$

$$\text{ii) } \frac{1}{3} \text{ and } \frac{1}{2}$$

$$\text{iii) } \frac{-1}{3} \text{ and } \frac{1}{4}$$

**ANSWER KEY**

II) i) -1

ii)  $\frac{-43}{45}$  iii)  $\frac{24}{25}$  iv)  $\frac{-5}{4}$

V) i) Commutative property of multiplication

ii) Associative property of addition

iii) Distributive property of multiplication over addition

iv) Commutative property of addition

VI.

i)  $\frac{-7}{45}$  ii)  $\frac{14}{25}$  iii)  $\frac{-3}{7}$  iv)  $\frac{-165}{187}$