1. Closure property is _____ for addition, subtraction and multiplication of rational numbers.

2. Commutative and Associative property is not true for _____ and _____ of rational numbers.

3. _____ is the multiplicative identity of a rational numbers.

4. $\dfrac{3}{4} + \dfrac{-3}{4} =$ _____.

5. The reciprocal of $\dfrac{-8}{17}$ is _____.

6. Simplify using suitable property:

   I. $\dfrac{2}{3} \times \left(\dfrac{-4}{7} + \dfrac{1}{5} \right)$

   II. $\dfrac{6}{7} \times \dfrac{49}{18} - \dfrac{7}{3} \times \dfrac{1}{49} + \dfrac{6}{7} \times \dfrac{1}{18}$

   III. $\dfrac{2}{5} \times \dfrac{1}{6} - \dfrac{1}{12} + \dfrac{2}{5} \times \dfrac{2}{3}$

7. Multiply the additive inverse of $\dfrac{-3}{7}$ with the reciprocal of $\dfrac{6}{49}$.

8. Represent $\dfrac{-3}{5}$ and $\dfrac{9}{5}$ on a number line.

9. Find five rational numbers between $\dfrac{-1}{5}$ and $\dfrac{3}{8}$.

10. Find four rational numbers between $\dfrac{1}{4}$ and $\dfrac{2}{3}$.

11. Write 3 rational numbers greater than -3.

12. Write 5 rational numbers less than 5.

13. The multiplicative inverse is also called _____.

14. Simplify: $\dfrac{-3}{7} \times \dfrac{2}{5} \times \dfrac{1}{9} \times \dfrac{15}{16}$.

15. Evaluate: $\dfrac{3}{5} + \dfrac{-7}{9} + \dfrac{1}{10} + \dfrac{-11}{18}$.

16. Name the properties used in the following:

I. $\dfrac{-3}{7} \times (\dfrac{2}{5} \times \dfrac{4}{9}) = (\dfrac{-3}{7} \times \dfrac{2}{5}) \times \dfrac{4}{9}$

II. $\dfrac{-13}{9} \times \dfrac{4}{7} = \dfrac{4}{7} \times \dfrac{-13}{9}$

III. $\dfrac{13}{7} \times \dfrac{7}{9} = \dfrac{13}{9}$

IV. $\dfrac{-2}{3} \times 1 = \dfrac{-2}{3}$

ANSWERS

4) 0	7) $^{7}/_{2}$
5) $^{17}/_{-8}$	14) $^{-1}/_{56}$
6) (i) $^{-26}/_{105}$	15) $^{-31}/_{45}$
(ii) $^{7}/_{3}$ (iii) $^{1}/_{4}$	