

International Indian School, Riyadh
Mathematics Worksheet
Std. VIII

Chapter 1. Rational Numbers

1. The product of a number and its multiplicative inverse is _____
2. Sum of a number and its negative is _____
3. _____ is the multiplicative identity for rational numbers.
4. _____ is the additive identity for rational numbers.
5. The reciprocal of a negative rational number is _____
6. There are _____ number of rational numbers between any two numbers.
7. Additive inverse of 0 is _____
8. Rational Number _____ has no reciprocal.
9. The numbers _____ and _____ are their own reciprocals.
10. The rational number that is equal to its negative is _____.
11. Using appropriate properties find:
 - (a) $-\frac{2}{3} \times \frac{2}{5} + \frac{7}{2} - \frac{2}{5} \times \frac{1}{6}$
 - (b) $\frac{1}{2} \times \frac{1}{4} + (-\frac{7}{18}) \times \frac{15}{7} - \frac{1}{4} \times \frac{1}{3}$
 - (c) $-\frac{5}{4} \times (\frac{8}{5} + 16)$
 - (d) $\frac{7}{12} \times (-\frac{3}{5}) + (-\frac{5}{3}) \times \frac{7}{12}$
 - (e) $\frac{2}{21} \times -\frac{3}{13} + \frac{-7}{9} - \frac{2}{21} \times \frac{10}{13}$
 - (f) $-\frac{4}{5} \times \frac{3}{7} \times \frac{15}{16} \times (-\frac{14}{9})$

12. Represent $-\frac{2}{7}$ and $\frac{4}{7}$ on a number line.
13. Verify that $-(-x) = x$ for $x = -\frac{2}{7}$
14. Is $-\frac{4}{17}$ the multiplicative inverse⁵ of $-4\frac{1}{4}$? why or why not?
15. Is 0.5 the multiplicative inverse of 2? why or why not?
16. Write five rational numbers greater than -5.
17. Find five rational numbers between
(a) 0 and -2 (b) $-\frac{3}{7}$ and $\frac{5}{11}$ (c) -3 and -4
18. Find the multiplicative inverse of $-2 \times -\frac{3}{4}$
19. Find the additive inverse of $-\frac{2}{9} + \frac{7}{9}$
20. Multiply $\frac{8}{13}$ by the reciprocal of $-\frac{17}{26}$.
21. Reciprocal of $-\frac{1}{y}$, where $y \neq 0$ is _____.
22. The product of two negative rational nos is always a _____ rational number.
23. $-\frac{25}{23} \div 0 = \underline{\hspace{2cm}}$
24. $0 \div (-\frac{25}{23}) = \underline{\hspace{2cm}}$
25. State the property used in the following:
 (a) $-\frac{25}{29} \times \frac{29}{-25} = 1$ (b) $\frac{8}{5} + 0 = 0 + \frac{8}{5} = \frac{8}{5}$
 (c) $-\frac{2}{9} (\frac{3}{5} + \frac{2}{9}) = -\frac{2}{9} \times \frac{3}{5} + (-\frac{2}{9}) \times \frac{2}{9}$

Prepared by: Asima Jameel (VI-VIII Girls)