

SAINIK SCHOOL GOPALGANJ
SUB: MATHEMATICS
CLASS - VIII

ASSIGNMENT

Chapter 1: Rational Numbers

Worksheet-I

1. What should be added to $-5/4$ to get -1 ?
(I) $-1/4$ (II) $1/4$ (III) 1 (IV) $-3/4$
2. What should be subtracted from $-5/4$ to get -1 ?
(I) $-1/4$ (II) $1/4$ (III) 1 (IV) $-3/4$
3. Which of the following is the identity element?
(I) 1 (II) -1 (III) 0 (IV) None of these
4. Which of the following is the Multiplicative identity for rational numbers?
(I) 1 (II) -1 (III) 0 (IV) None of these
5. Which of the following is neither appositive nor a negative rational number?
(I) 1 (II) 0 (III) Such a rational number does not exist
(IV) None of these
6. Which of the following lies between 0 and -1 ?
(I) 0 (II) -3 (III) $-2/3$ (IV) $4/3$
7. Which of the following is the reciprocal of a ?
(I) $-a$ (II) a (III) $1/a$ (IV) $-1/a$
8. Which of the following is the product of $7/8$ and $-4/21$?
(I) $-1/6$ (II) $1/12$ (III) $-16/63$ (IV) $-147/16$
9. Which of the following is the product of $(-7/8)$ and $4/21$?
(I) $-1/6$ (II) 12 (III) $-63/16$ (IV) $-16/147$

10. Which of the following is the reciprocal of the reciprocal of a rational number?

- (I) -1 (II) 1 (III) 0 (IV) The number itself

Worksheet-II

1. Associative property is not followed by which type of numbers?
2. ____ is the identity for the addition of rational numbers.
(a) 1 (b) 0 (c) 1 (d) 1
3. What is the multiplicative identity for rational numbers?
4. What is the additive inverse of $\frac{3}{5}$?
5. How many reciprocals does zero have?
6. Write.
 - (i) The rational number that does not have any reciprocal at all.
 - (ii) The rational numbers those are equal to their reciprocals.
 - (iii) The rational number that is equal to its negative.
7. Give a rational number which when added to it gives the same number.
8. By what rational number should $\frac{22}{7}$ be divided, to get the number - $\frac{11}{24}$?
9. Represent the following rational numbers on the number line.
 - (i) $\frac{3}{10}$
 - (ii) $\frac{8}{7}$
 - (iii) 1.345
 - (iv) $\frac{21}{7}$
10. If you subtract $\frac{1}{8}$ from a number and multiply the result by $\frac{1}{4}$, you get $\frac{1}{16}$. What is the number?
11. Which of the following can be expressed as terminating or non - terminating?
 - (a) $\frac{1}{3}$
 - (b) $-\frac{14}{15}$
 - (c) $-\frac{38}{81}$
12. Find two rational numbers between (i) -3 and 3. (ii) 0 and 1.
13. Insert six rational numbers between:
 - (i) $-\frac{1}{4}$ and $-\frac{2}{5}$
 - (ii) $\frac{21}{12}$ and $\frac{12}{21}$.

14. Find two rational and two irrational numbers between $\frac{1}{8}$ and $\frac{2}{9}$.

Worksheet-III

1. Write three rational numbers occurring between $\frac{1}{3}$ and $\frac{4}{5}$.
2. Multiply the negative of $\frac{2}{3}$ by the inverse of $\frac{9}{7}$.
3. What should be added to $-\frac{16}{3}$ to make it $\frac{1}{9}$?
4. What should be subtracted from $\frac{5}{8}$ to make it -1 ?
5. Write different properties of a rational number.
6. Represent $\frac{3}{4}$ and $\frac{8}{9}$ on a number line.
7. Find the greater of the two $-\frac{12}{5}$ and $\frac{4}{9}$.
8. Multiply the negative of $\frac{29}{2}$ by its inverse.
9. Write a rational number equivalent to $\frac{9}{10}$ having 90 as numerator.
10. Write a rational number equivalent to $\frac{18}{29}$ having 87 as denominator.
11. Write $\frac{2}{3}$, $-\frac{4}{9}$, $-\frac{8}{11}$ in ascending order.
12. Write $\frac{2}{3}$, $-\frac{4}{9}$, $-\frac{8}{11}$ in descending order.
13. Fill in the blanks:
 - (i) The product of a number and its product is _____.
 - (ii) The rational number _____ has no reciprocal.
 - (iii) The reciprocal of the reciprocal of a number is _____.
 - (iv) The rational number _____ is neither positive nor negative.
 - (v) _____ is the only rational number which is equals its additive inverse.
14. Write:
 - (i) A rational number which has no reciprocal.
 - (ii) A rational number whose product with a given rational number is equal to the given rational number.
 - (iii) A rational number which is equal to its reciprocal.
15. Find three rational number between $\frac{3}{7}$ and $\frac{2}{3}$

16. The product of two rational numbers is $-\frac{28}{81}$. If one of them is $-\frac{2}{3}$ then find the other.
17. Find $\frac{3}{7} + (-\frac{6}{11}) + (-\frac{8}{21}) + \frac{5}{22}$
18. Write additive inverse of the following:
(a) $-\frac{7}{19}$ (b) $\frac{21}{112}$
19. Verify that $-(-x) = x$ for
(a) $x = \frac{11}{15}$ (b) $x = -\frac{13}{17}$
20. Represent $-\frac{2}{11}, -\frac{5}{11}, -\frac{9}{11}$ on the number line.
21. Write five rational numbers which are smaller than 2.
22. Write all properties of rational numbers.
23. Write definition of rational numbers. Give three examples.
24. What is the additive identity of rational numbers?
25. What is the multiplicative identity of rational numbers?
