

MCQ WORKSHEET-I
CLASS VIII: CHAPTER - 1
RATIONAL NUMBERS

1. Associative property is not followed in _____.
(a) whole numbers (b) integers (c) natural numbers (d) rational numbers
2. _____ is the identity for the addition of rational numbers.
(a) 1 (b) 0 (c) -1 (d) $\frac{1}{2}$
3. _____ is the multiplicative identity for rational numbers.
(a) 1 (b) 0 (c) -1 (d) $\frac{1}{2}$
4. The additive inverse of $\frac{7}{5}$ is
(a) 1 (b) 0 (c) $-\frac{7}{5}$ (d) $\frac{7}{5}$
5. Zero has _____ reciprocal.
(a) 1 (b) 2 (c) 3 (d) no
6. The numbers _____ and _____ are their own reciprocals
(a) 1 and 0 (b) 1 and -1 (c) -1 and 0 (d) none of these.
7. The reciprocal of -5 is _____.
(a) 5 (b) 1 (c) $-\frac{1}{5}$ (d) $\frac{1}{5}$
8. Reciprocal of $\frac{1}{x}$, where $x \neq 0$ is _____.
(a) 1 (b) x (c) 0 (d) none of these
9. The product of two rational numbers is always a _____.
(a) whole numbers (b) integers (c) natural numbers (d) rational numbers
10. Simplify: $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(\frac{-14}{9}\right)$
(a) 1 (b) 0 (c) 2 (d) $\frac{1}{2}$
11. The sum of the rational numbers $-\frac{5}{16}$ and $\frac{7}{12}$ is
(a) $-\frac{7}{48}$ (b) $-\frac{11}{30}$ (c) $\frac{13}{48}$ (d) $\frac{1}{3}$
12. What number should be added to $\frac{7}{12}$ to get $\frac{4}{15}$?
(a) $-\frac{19}{60}$ (b) $-\frac{11}{30}$ (c) $\frac{51}{60}$ (d) $\frac{1}{20}$

MCQ WORKSHEET-II
CLASS VIII: CHAPTER - 1
RATIONAL NUMBERS

1. The reciprocal of a positive rational number is _____.
(a) negative (b) positive (c) zero (d) none of these
2. What number should be subtracted from $-\frac{3}{5}$ to get -2?
(a) $-\frac{7}{5}$ (b) $-\frac{13}{5}$ (c) $\frac{13}{5}$ (d) $\frac{7}{5}$
3. Which of the rational numbers $-\frac{11}{28}$, $-\frac{5}{7}$, $\frac{9}{-14}$, $\frac{29}{-42}$ is the greatest?
(a) $-\frac{11}{28}$ (b) $-\frac{5}{7}$ (c) $\frac{9}{-14}$ (d) $\frac{29}{-42}$
4. Which of the rational numbers $-\frac{5}{16}$, $-\frac{13}{24}$, $\frac{3}{-4}$, $\frac{7}{-12}$ is the smallest?
(a) $-\frac{5}{16}$ (b) $-\frac{13}{24}$ (c) $\frac{3}{-4}$ (d) $\frac{7}{-12}$
5. Simplify: $\frac{2}{3} + \frac{-4}{5} + \frac{7}{15} + \frac{-11}{20}$
(a) $-\frac{1}{5}$ (b) $-\frac{13}{60}$ (c) $-\frac{4}{15}$ (d) $-\frac{7}{30}$
6. Rational number $\frac{3}{40}$ is equal to:
(a) 0.75 (b) 0.12 (c) 0.012 (d) 0.075
7. A rational number between 3 and 4 is:
(a) $\frac{3}{2}$ (b) $\frac{4}{3}$ (c) $\frac{7}{2}$ (d) $\frac{7}{4}$
8. A rational number between $\frac{3}{5}$ and $\frac{4}{5}$ is:
(a) $\frac{7}{5}$ (b) $\frac{7}{10}$ (c) $\frac{3}{10}$ (d) $\frac{4}{10}$
9. A rational number between $\frac{1}{2}$ and $\frac{3}{4}$ is:
(a) $\frac{2}{5}$ (b) $\frac{5}{8}$ (c) $\frac{4}{3}$ (d) $\frac{1}{4}$
10. The multiplicative inverse of $\frac{3}{40}$ is:
(a) 1 (b) 0 (c) any number (d) none of these

PRACTICE QUESTIONS

CLASS VIII: CHAPTER - I RATIONAL NUMBERS

- Find $\frac{3}{7} + \left(\frac{-6}{11}\right) + \left(\frac{-8}{21}\right) + \frac{5}{22}$
- Find $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(\frac{-14}{9}\right)$
- Find using distributive property: (i) $\left\{\frac{7}{5} \times \left(\frac{-3}{12}\right)\right\} + \left\{\frac{7}{5} \times \frac{5}{12}\right\}$ (ii) $\left\{\frac{9}{16} \times \frac{4}{12}\right\} + \left\{\frac{9}{16} \times \frac{-3}{9}\right\}$
- Find $\frac{2}{5} \times \frac{-3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}$
- Simplify: $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(\frac{-14}{9}\right)$
- Multiply $\frac{6}{13}$ by the reciprocal of $\frac{-7}{16}$.
- What number should be added to $\frac{7}{12}$ to get $\frac{4}{15}$?
- What number should be subtracted from $-\frac{3}{5}$ to get -2 ?
- Is $\frac{8}{9}$ the multiplicative reciprocal of $-1\frac{1}{8}$? Why or why not?
- Is 0.3 the multiplicative reciprocal of $3\frac{1}{3}$? Why or why not?
- Write any 3 rational numbers between -2 and 0 .
- Find any ten rational numbers between $-\frac{5}{6}$ and $\frac{5}{8}$.
- Find three rational numbers between $\frac{1}{4}$ and $\frac{1}{2}$.
- Find ten rational numbers between $\frac{1}{4}$ and $\frac{1}{2}$.
- Represent these numbers on the number line. (i) $\frac{7}{4}$ (ii) $-\frac{5}{6}$ (iii) $\frac{4}{7}$ (iv) $\frac{9}{4}$
- Represent $-\frac{2}{11}$, $-\frac{5}{11}$, $-\frac{9}{11}$ on the number line
- Find five rational numbers between. (i) $\frac{2}{3}$ and $\frac{4}{5}$ (ii) $-\frac{3}{2}$ and $\frac{5}{3}$ (iii) $\frac{1}{4}$ and $\frac{1}{2}$
- Write five rational numbers greater than -2 .
- Find ten rational numbers between $\frac{3}{5}$ and $\frac{3}{4}$.
- Write.
 - The rational number that does not have a reciprocal.
 - The rational numbers that are equal to their reciprocals.
 - The rational number that is equal to its negative.

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ASSIGNMENT QUESTIONS

CLASS VIII: CHAPTER - I RATIONAL NUMBERS

- Simplify: (i) $\frac{-2}{5} - \left(\frac{-3}{10}\right) - \left(\frac{-4}{15}\right)$ (ii) $\frac{5}{3} - \frac{7}{6} + \left(\frac{-2}{3}\right)$ (iii) $-\frac{3}{2} + \left(\frac{5}{4} - \frac{7}{4}\right)$
- Verify that $(x \times y)^{-1} = x^{-1} \times y^{-1}$ when $x = \frac{-2}{3}$ and $y = \frac{-3}{5}$
- If you subtract $\frac{1}{2}$ from a number and multiply the result by $\frac{1}{2}$, you get $\frac{1}{8}$. What is the number?
- Three consecutive integers are such that when they are taken in increasing order and multiplied by 2, 3, and 4 respectively, they add up to 74. Find these numbers.
- Represent the following rational numbers on the number line
(a) $-\frac{1}{4}$ (b) $-1\frac{1}{5}$ (c) $-3\frac{8}{5}$
- Represent the following rational numbers on the number line
(a) $-\frac{7}{10}$ (b) $-5\frac{3}{5}$.
- Find two rational numbers between (i) -2 and 2 , (ii) -1 and 0 .
- Insert six rational numbers between (i) $-\frac{1}{3}$ and $-\frac{2}{3}$ (ii) $\frac{1}{4}$ and $\frac{1}{2}$.
- Arrange the following numbers in ascending order: $\frac{4}{-9}$, $-\frac{5}{12}$, $\frac{7}{-18}$, $-\frac{2}{3}$
- Arrange the following numbers in descending order: $-\frac{5}{6}$, $-\frac{7}{12}$, $-\frac{13}{28}$, $-\frac{23}{24}$
- Represent $4\frac{2}{3}$ on the number line.
- What number should be added to $\frac{-7}{8}$ to get $\frac{4}{9}$?
- The sum of two rational numbers is $-\frac{1}{2}$. If one of the numbers is $\frac{5}{6}$, find the other.
- What number should be subtracted from $-\frac{2}{3}$ to get $-\frac{1}{2}$?
- Divide the sum of $\frac{13}{5}$ and $-\frac{12}{7}$ by the product of $-\frac{31}{7}$ and $\frac{-1}{2}$.
- The product of two rational numbers is $-\frac{16}{9}$. If one of the numbers is $-\frac{4}{3}$, find the other.
- Find three rational numbers between 4 and 5.
- Find three rational numbers between $\frac{2}{3}$ and $\frac{3}{4}$.

20. After reading $\frac{7}{9}$ of a book, 40 pages are left. How many pages are there in the book?
21. A drum full of rice weights 4016 kg. If the empty drum weights 1334 kg, find the weight of rice in the drum.
22. Raju earns Rs16000/month. He spends $\frac{1}{4}$ of his income on food; $\frac{3}{10}$ of the remainder on house rent and $\frac{5}{21}$ of the remainder on education of children. How much money is still left with him?
23. Divide the sum of $2\frac{1}{4}$ and $5\frac{1}{5}$ by the product of $2\frac{1}{4}$ and $\frac{2}{3}$
24. Divide the difference of $\frac{12}{7}$ and $\frac{13}{4}$ by the product of $\frac{4}{5}$ and $\frac{25}{2}$.
25. A tin holds $16\frac{1}{2}$ litres of oil. How many such tins will be required to hold $313\frac{1}{2}$ litres of oil?
26. Salma bought $2\frac{1}{2}$ kg onions at Rs. 12 per Kg. and $1\frac{3}{8}$ Kg. tomatoes at Rs. $16\frac{8}{11}$ per Kg. How much money did she give to the shopkeeper?
27. A designer needs $\frac{3}{5}$ th of a metre of cloth to make a fancy dress for children taking part in a dance performance. If 200 children are taking part, how much cloth will the designer need?
28. Find a rational number between $\frac{1}{2}$ and $\frac{1}{4}$ such that its denominator is 8.
29. Which number should be subtracted from $\frac{11}{12}$ so that we obtain $\frac{-3}{4}$?
30. What number should be added to $\frac{15}{16}$ so that we get the rational number $\frac{77}{48}$.
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