

BCM SCHOOL, CHANDIGARH ROAD
A SENIOR SECONDARY SCHOOL OF BCM FOUNDATION
AFFILIATED TO CBSE, NEW DELHI

CLASS – VIII

REVISION ASSIGNMENT

SUBJECT – MATHEMATICS

CHAPTER – 1

RATIONAL NUMBERS

April, 2024

MCQs:

1. Write additive inverse of $-\frac{7}{13}$:
 (a) $\frac{7}{13}$ (b) 13 (c) -13 (d) 0
2. Find the multiplicative inverse of -17
 (a) $-\frac{1}{17}$ (b) 289 (c) -289 (d) -17
3. Multiply $\frac{7}{13}$ by the reciprocal of $-\frac{7}{16}$
 (a) $-\frac{16}{13}$ (b) $\frac{16}{13}$ (c) $\frac{3}{16}$ (d) $-\frac{13}{16}$
4. Fill in the blanks: _____ has no reciprocal.
 (a) One (b) Zero (c) Two (d) Three
5. $\frac{13}{6}$ is the reciprocal of _____.
 (a) $\frac{6}{13}$ (b) $-\frac{13}{6}$ (c) $-\frac{6}{13}$ (d) 0
6. Find the rational number between $\frac{2}{3}$ **and** $\frac{1}{2}$.
 (a) $-\frac{7}{12}$ (b) $\frac{7}{12}$ (c) $\frac{5}{3}$ (d) $\frac{6}{3}$

1. Fill in the blanks:

- (i) The product of a positive number and its reciprocal 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 equal its additive inverse.

Subjective Questions:

- Q1. Write the additive and multiplicative inverse of each of the following rational numbers.
 a. $\frac{2}{11}$ b. $\frac{-1}{2}$ c. $\frac{-9}{11}$ d. -4 e. -16
- Q2. Verify $x \times y = y \times x$ when a) $x = \frac{3}{5}$, $y = \frac{-15}{16}$ b) $x = \frac{-7}{3}$, $y = \frac{-27}{49}$
- Q3. Using appropriate properties find:
 (i) $-\frac{2}{3} \times \frac{3}{5} + \frac{5}{2} - \frac{3}{5} \times \frac{1}{6}$
 (ii) $\frac{2}{5} \times \left(\frac{3}{-7}\right) - \frac{1}{6} \times \frac{3}{2} + \frac{1}{14} \times \frac{2}{5}$
- Q4. Verify $-(-x) = x$ for i) $x = \frac{-3}{5}$ ii) $x = \frac{4}{3}$
- Q5. Multiply $\frac{6}{13}$ by the reciprocal of $\frac{-7}{16}$
- Q6. From the sum of $\frac{-2}{5}$ and $\frac{3}{25}$ subtract the sum of $\frac{4}{5}$ and $\frac{-7}{25}$
- Q7. Find the multiplicative inverse of $\left(\frac{-4}{3} \div \frac{5}{9}\right)$
- Q8. Divide the sum of $\frac{-3}{7}$ and $\frac{13}{14}$ by their product
- Q9. Find ten rational numbers between $\frac{-4}{5}$ and $\frac{-3}{7}$
- Q10. Arrange in ascending order
 $\frac{-11}{3}$, $\frac{-4}{5}$, $\frac{-7}{9}$, $\frac{9}{5}$

Case Study

A dog buries three bones in the backyard. The first bone is buried $-2\frac{1}{2}$ feet, the second bone is buried $-5\frac{1}{6}$ feet. And the third bone is buried $\frac{-30}{4}$ feet.

i) Simplify : $-2\frac{1}{2} \times -5\frac{1}{6} \times \frac{-30}{4}$

ii) How much deeper is the third bone buried from the first bone?

Assertion-Reasoning MCQs

Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true but R is not the correct explanation of A.

(c) A is true but R is false.

(d) A is false but R is true.

1. (Assertion): $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ is a rational number.

(Reasons): Rational numbers follow commutative property

2. (Assertion): $\frac{3}{5}$ is a rational number and if 0 is added to it there is no change in result i.e. $\frac{3}{5} + 0 = \frac{3}{5}$

(Reason): 0 is the additive identity.

Answer Key

MCQs: 1. (a) 2. (a) 3. (a) 4. (b) 5. (a) 6. (b)

Fill in the blanks 1. (i) One (ii) Zero (iii) One (iv) Zero (v) One

Subjective Questions: Q3. 2

Q5. $\frac{-96}{91}$

Q6. $\frac{-4}{5}$

Q7. $\frac{-5}{12}$

Q8. $\frac{-49}{39}$

Q10. $\frac{-11}{3}, \frac{-4}{5}, \frac{-7}{9}, \frac{9}{5}$

Case Study: (a) $-96\frac{7}{8}$ (b) -5