



1. A rational number p/q is said to be in the simplest form if the HCF of p and q is

- (a) 2 (b) 1
(c) 0 (d) 3

2. A rational number a/b is greater than c/d if

- (a) $ad > bc$ (b) $ad < bc$
(c) $ad = bc$ (d) $ad \neq bc$

3. Rational numbers are not closed under

- (a) Addition (b) Multiplication
(c) Division (d) Subtraction

4. Which expression shows the multiplicative identity of rational numbers?

- a) $a \times 0 = 0 \times a = 0$, where a is a rational number.
b) $a \times 1 = 1 \times a = a$, where a is a rational number.
c) $a \times b = b \times a$, where a and b are rational numbers.
d) $a \times (b \times c) = (a \times b) \times c$, where a , b , and c are rational numbers

5. If A is a non-zero rational number, then which expression shows the existence of its multiplicative inverse?

- (a) $m \times (1/m) = 1$ (b) $m/m = 1$
(c) $m/1 = a$ (d) $m \times 1 = m$
(e) all of these

6. Find ten rational numbers between 2 and 3.

7. Find two rational numbers between $\sqrt{2}$ and $\sqrt{3}$.

8. A library has books on fiction, non-fiction, and reference books. $5/9$ of all the books in the library are works of fiction and $2/15$ are of non-fiction. If there are 7,294 reference books, how many books are there in the library?

9. Identify the Properties Associated with the following:-

(i) $\frac{-5}{9} \times \frac{3}{5} = \frac{3}{5} \times \left(\frac{-5}{9}\right)$ (ii) $\frac{1}{2} \times \left(\frac{2}{3} \times \frac{3}{4}\right) = \left(\frac{1}{2} \times \frac{2}{3}\right) \times \frac{3}{4}$

(iii) $\frac{1}{2} \times \left(\frac{2}{3} + \frac{3}{4}\right) = \frac{1}{2} \times \frac{2}{3} + \frac{1}{2} \times \frac{3}{4}$

10. Represent the following rational numbers on the number line.

- (i) $-3/7$ (ii) $8/7$ (iii) 1.062 (iv) $0.\bar{3}$

