

RATIONAL NUMBER**PROPERTIES OF RATIONAL NUMBER****EXERCISE**

Q.1 $-\frac{2}{3} \times \frac{3}{5} + \frac{5}{2} - \frac{3}{5} \times \frac{1}{6}$

Q.2 $\frac{2}{5} \times \left(-\frac{3}{7}\right) - \frac{1}{6} \times \frac{3}{2} + \frac{1}{14} \times \frac{2}{5}$

Q.3 $\frac{5}{7} + \frac{1}{3} + \frac{8}{9} + \frac{1}{14}$

Q.4 Find the absolute value of:

(i) $\frac{8}{3}$

(ii) $\frac{-5}{4}$

(iii) $\left(\frac{1}{2} - \frac{3}{4}\right)$

(iv) $\frac{-1}{2} \times \frac{3}{7}$

(v) $\frac{-4}{5} \div \frac{16}{25}$

Q.5 Verify the commutative property for rational numbers with the help of the following rational numbers

(i) $\frac{7}{8}, \frac{3}{5}$

(ii) $\frac{5}{-6}, \frac{2}{3}$

Q.6 State the property used in each of the following:

(i) $\frac{-4}{7} + \frac{5}{21} = \frac{5}{21} + \frac{-4}{7}$

(ii) $\frac{-1}{2} + \frac{-5}{21} = \frac{-5}{21} + \frac{-1}{2}$

$$(iii) \frac{3}{4} + \left(\frac{7}{2} + \frac{-3}{8} \right) = \left(\frac{3}{4} + \frac{7}{2} \right) + \frac{-3}{8}$$

$$(iv) \left(\frac{-11}{12} + \frac{-5}{6} \right) + 4 = \frac{-11}{12} + \left(\frac{-5}{6} + 4 \right)$$

$$(v) \frac{3}{10} + \left(\frac{-11}{15} + \frac{10}{-9} \right) = \left(\frac{3}{10} + \frac{-11}{15} \right) + \frac{10}{-9}$$

$$(vi) \frac{3}{-7} + \left(\frac{-5}{8} + \frac{9}{4} \right) = \left(\frac{3}{-7} + \frac{-5}{8} \right) + \frac{9}{4}$$

Q.7 Is 0.3 the multiplicative inverse of $3\frac{1}{3}$? Why or Why not?

ANSWER KEY

1. 2

2. $-\frac{11}{28}$

3. $\frac{253}{126}$

4. (i) $\left| \frac{8}{3} \right| = \frac{8}{3}$ (ii) $\left| \frac{-5}{4} \right| = \frac{5}{4}$

(iii) $\left| \frac{1}{2} - \frac{3}{4} \right| = \frac{1}{4}$ (iv) $\left| \frac{-1}{2} \times \frac{3}{7} \right| = \frac{3}{14}$

(v) $\left| \frac{-4}{5} \times \frac{25}{16} \right| = \frac{5}{4}$

6. (i) Commutative

(ii) Commutative

(iii) Associative

(iv) Associative

(v) Associative

(vi) Associative