CORDOVA™

ASSESSMENT

Chapter 5 : Operations on Rational Numbers

Max.Marks : 20

A : Choose the correct alternatives in each of the following : (1 × 5 = 5)

1. The value of $\left(\dfrac{-12}{7} + \dfrac{5}{7} \right)$ is

   (a) −1   (b) 1   (c) $\dfrac{17}{7}$ (d) $\dfrac{-17}{7}$

2. If $\dfrac{-25}{5} \times \dfrac{p}{q} = \dfrac{-1}{5}$, then $\dfrac{p}{q}$ is equal to

   (a) −25   (b) −5   (c) $\dfrac{-1}{5}$ (d) $\dfrac{1}{25}$

3. The multiplicative inverse of $\dfrac{-1}{9} \times (-2)$ is

   (a) $\dfrac{2}{9}$ (b) $4\dfrac{1}{2}$ (c) $\dfrac{-2}{9}$ (d) none of these

4. When $\dfrac{1}{3}$ is divided by $\dfrac{1}{15}$, we get

   (a) $\dfrac{1}{5}$ (b) $\dfrac{1}{3}$ (c) $\dfrac{3}{5}$ (d) 5

5. The sum of two rational numbers is − 2. If one of the rational numbers is $\dfrac{-5}{7}$, then the other number is

   (a) $\dfrac{9}{7}$ (b) $\dfrac{-10}{7}$ (c) $\dfrac{-9}{7}$ (d) $\dfrac{-5}{14}$

B : Solve the following : (3 × 5 = 15)

1. From a starting point A, Vivek walks $\dfrac{3}{4}$ km towards East and then $\dfrac{7}{6}$ km towards West to reach at a point B. Where will he be now from the starting point A?

2. Divide the sum of $\dfrac{-11}{-14}$ and $\dfrac{-3}{7}$ by the product of $\dfrac{-4}{7}$ and $\dfrac{-1}{4}$.

3. Verify : $x \times (y + z) = x \times y + x \times z$, where $x = \dfrac{-1}{3}$, $y = \dfrac{-2}{5}$, $z = \dfrac{-1}{6}$.

4. What should be added to $\left[\dfrac{-5}{6} + \dfrac{1}{4} \right]$ to get − 4 ?

5. Is it possible for two rational numbers $\dfrac{a}{b}$ and $\dfrac{b}{a}$ to be equal? Justify your answer with examples.