Chapter 1 : Rational Numbers

WORKSHEET

1. Fill in the blanks :

(i) $\left(\dfrac{3}{-5} + \dfrac{1}{-8}\right) + \text{......................} = \dfrac{3}{-5} + \left(\dfrac{4}{-7} + \dfrac{1}{-8}\right)$.

(ii) $\text{......................} \div \left(-\dfrac{11}{13}\right) = 1$.

(iii) The two rational numbers whose absolute value is $\dfrac{1}{3}$ are ....

(iv) A rational number between x and y is ....

(v) If $a = \dfrac{2}{5}$ and $b = \dfrac{-1}{3}$, then the value of $(a + b) \div (a - b)$ is ....

(vi) $\left(\dfrac{3}{7} + \dfrac{1}{11}\right) + \left(\dfrac{-5}{13}\right) = \text{.........................}$.

(vii) $\dfrac{-4}{3} \times \left[\dfrac{1}{3} + \left(\dfrac{-5}{7}\right)\right] = \left(\dfrac{-4}{3} \times \text{...........}\right) + \left(\dfrac{-4}{3} \times \text{...........}\right)$.

(viii) The product of two rational numbers is always a ....

(ix) The reciprocal of –9 is ....

(x) The rational number lying between – 4 and –3 is ....

2. Match the following :

Column A	**Column B**
(i) $\left(\dfrac{-4}{5}\right) + \left(\dfrac{-2}{3}\right)$ is a rational number.	(a) Existence of multiplicative inverse
(ii) $\left(\dfrac{-11}{12}\right) + \left(\dfrac{-3}{4}\right) = \left(\dfrac{-3}{4}\right) + \left(\dfrac{-11}{12}\right)$	(b) Associative property
(iii) $\dfrac{-2}{5} \times \left(\dfrac{5}{-2}\right) = \dfrac{5}{-2} \times \left(\dfrac{-2}{5}\right) = 1$	(c) Closure property over addition
(iv) $\left(\dfrac{-3}{7} \times \dfrac{1}{2}\right) \times \left(\dfrac{-5}{2}\right) = \dfrac{-3}{7} \times \left(\dfrac{1}{2} \times \dfrac{-5}{2}\right)$	(d) Distributive law of multiplication over addition
(v) $\dfrac{-1}{2} \times \left\{\dfrac{-3}{4} + \left(\dfrac{-1}{3}\right)\right\} = \left\{\dfrac{-1}{2} \times \left(\dfrac{-3}{4}\right)\right\} + \left\{\dfrac{-1}{2} \times \left(\dfrac{-1}{3}\right)\right\}$	(e) Distributive law of multiplication over subtraction
	(f) Commutative property.