Exercise – 1.1

Question 1: Name the property under multiplication used in each of the following.

(i)

$$\frac{-4}{5} \times 1 = 1 \times \frac{-4}{5} = \frac{-4}{5}$$

Property Used: Multiplicative Identity Property

(Since any rational number multiplied by 1 remains unchanged.)

(ii)

$$\frac{-13}{17} \times \frac{-2}{7} = \frac{-2}{7} \times \frac{-13}{17}$$

Property Used: Commutativity of Multiplication

(Order of multiplication does not change the result.)

(iii)

$$\frac{-19}{29} \times \frac{29}{-19} = 1$$

Property Used: Multiplicative Inverse (Reciprocal Property)

(Product of a number and its reciprocal is 1.)

Question 2: Tell what property allows you to compute

$$\frac{1}{3} \times \left(6 \times \frac{4}{3}\right) \text{ as } \left(\frac{1}{3} \times 6\right) \times \frac{4}{3}$$

Property Used: Associativity of Multiplication

(Grouping of numbers can be changed in multiplication without changing the result.)

Question 3: The product of two rational numbers is always a _____.

Answer: Rational Number

(Rational numbers are closed under multiplication.)