

# RATIONAL NUMBERS

## HANDOUT 3/3

### Multiplication of Rational Numbers:

Product of two Rational Numbers is always a rational number.

$$\frac{a}{b} \times \frac{c}{d} = \frac{a c}{b d}$$

### Multiplicative Inverse :

If  $a$  is a non zero rational number  $\frac{1}{a}$  is the multiplicative inverse of  $a$  .

Product of a Rational Number and its Multiplicative inverse is 1.

### Division of Rational Numbers:

*If  $m$  and  $n$  two **rational numbers** such that  $n \neq 0$ , then the result of **dividing**  $m$  by  $n$  is the **rational number** obtained on multiplying  $m$  by the reciprocal of  $n$ . we write  $m \div n$ . Thus  $m \div n = m \times 1/n$ .*