

Rational numbers:

The numbers of the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$, are called rational numbers.

Example: $\frac{5}{8}$, $\frac{-3}{14}$, $\frac{7}{-15}$ and $\frac{-6}{-11}$ is a rational number.

Positive rationals:

A rational number is said to be positive if its numerator and denominator are either both positive or both negative.

Example: $\frac{5}{7}$, $\frac{-2}{-3}$,

Negative rationals:

A rational number is said to be negative if its numerator and denominator are of opposite signs.

Example: $\frac{-4}{9}$, $\frac{5}{-12}$

Equivalent rational numbers:

If $\frac{a}{b}$ is a rational number and m is a nonzero integer then $\frac{a}{b} = \frac{a \times m}{b \times m}$

Example: $\frac{-3}{4} = \frac{(-3) \times 2}{4 \times 2} = \frac{-6}{8}$

$\frac{-3}{4} = \frac{(-3) \times 3}{4 \times 3} = \frac{-9}{12}$