



EXERCISE 1.2

1. Represent these numbers on the number line. (i) $\frac{7}{4}$ (ii) $\frac{-5}{6}$
2. Represent $\frac{-2}{11}$, $\frac{-5}{11}$, $\frac{-9}{11}$ on the number line.
3. Write five rational numbers which are smaller than 2.
4. Find ten rational numbers between $\frac{-2}{5}$ and $\frac{1}{2}$.
5. Find five rational numbers between.
 - (i) $\frac{2}{3}$ and $\frac{4}{5}$
 - (ii) $\frac{-3}{2}$ and $\frac{5}{3}$
 - (iii) $\frac{1}{4}$ and $\frac{1}{2}$
6. Write five rational numbers greater than -2 .
7. Find ten rational numbers between $\frac{3}{5}$ and $\frac{3}{4}$.

WHAT HAVE WE DISCUSSED?

1. Rational numbers are **closed** under the operations of addition, subtraction and multiplication.
2. The operations addition and multiplication are
 - (i) **commutative** for rational numbers.
 - (ii) **associative** for rational numbers.
3. The rational number 0 is the **additive identity** for rational numbers.
4. The rational number 1 is the **multiplicative identity** for rational numbers.
5. The **additive inverse** of the rational number $\frac{a}{b}$ is $-\frac{a}{b}$ and vice-versa.
6. The **reciprocal** or **multiplicative inverse** of the rational number $\frac{a}{b}$ is $\frac{c}{d}$ if $\frac{a}{b} \times \frac{c}{d} = 1$.
7. **Distributivity** of rational numbers: For all rational numbers a, b and c ,
 $a(b + c) = ab + ac$ and $a(b - c) = ab - ac$
8. Rational numbers can be represented on a number line.
9. Between any two given rational numbers there are countless rational numbers. The idea of **mean** helps us to find rational numbers between two rational numbers.