CBSE Class 7 Maths Notes Chapter 2: The PDF revision notes for CBSE Class 7 Maths Chapter 2 on Fractions and Decimals are currently accessible on this page. The concepts of fractions and decimals, along with their relationships, are introduced in this chapter.

Since fractions and decimals are two of the most basic mathematical concepts covered in this chapter, our specialists have developed these notes that address the key ideas and how they apply to sums. To prepare for their exams, students can view the notes PDF online or download it for free.

CBSE Class 7 Maths Notes Chapter 2 Overview

Below we have provided CBSE Class 7 Maths Notes Chapter 2 for the students to help them ace their class 7 maths examination.

- Meaning of Fractions
- Representation of Fractions
- Fractions on Number Line
- Multiplication of Fractions
- Fraction as an Operator ‘of’
- Division of Fractions
- Reciprocal of a Fraction
- Types of Fractions
- An Introduction to Decimals
- Multiplication of Decimals
- Division of Decimals

CBSE Class 7 Maths Notes Chapter 2

We studied fractions, decimals, and addition and subtraction operations on them in the last session.

The word **fraction** derives from the Latin word **“Fractus”** meaning **broken**. It represents a **part of a whole**, consisting of a number of equal parts out of a whole.

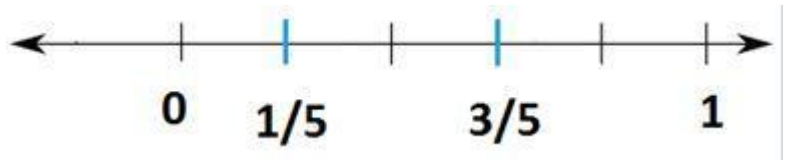
Representation of Fractions

A **fraction** is represented by 2 numbers on top of each other, separated by a line. The **number on top is the numerator** and the **number below is the denominator**. Example :34 which basically means 3 parts out of 4 equal divisions.

Fractions on the Number Line

In order to represent a fraction on a number line, we divide the line segment between **two whole numbers into n equal parts**, where n is the denominator.

Example: To represent 1/5 or 3/5, we divide the line between 0 and 1 in 5 equal parts. Then the **numerator gives the number of divisions** to mark.



Multiplication of Fractions

Multiplication of Fractions

Multiplication of a **fraction by a whole number:**
Example 1: 7×(1/3) = 7/3
Example 2 : 5×(7/45) = 35/45, Dividing numerator and denominator by 5, we get 7/9

Multiplication of a **fraction by a fraction** is basically product of numerators/product of denominators.

Example 1: (3/5) × (12/13) = 36/65
Example 2 : Multiplication of mixed fractions
$4\frac{2}{3} \times 1\frac{1}{7}$

Fraction as an Operator 'Of'

The **'of'** operator basically implies **multiplication**.

Example: 1/6 of 18 = (1/6)×18 = 18/6 = 3
or, 1/2 of 11 = (1/2) × 11 = 11/2

Division of Fractions

Reciprocal of a Fraction

Reciprocal of any number n is written as1n
Reciprocal of a fraction is obtained by **interchanging the numerator and denominator.**
Example: Reciprocal of 2/5 is 5/2
Although zero divided by any number means zero itself, we cannot find reciprocals for them, as a **number divided by 0 is undefined**.
Example: Reciprocal of 0/7 ≠ 7/0

Division of Fractions

Division of a **whole number** by a **fraction:** we multiply the whole number with the reciprocal of the fraction.
Example: 63÷(7/5) = 63×(5/7) = 9×5 = 45

Division of a **fraction** by a **whole number**: we multiply the fraction with the reciprocal of the whole number.
Example: (8/11)÷4 = (8/11)×(1/4) = 2/11

Division of a **fraction** by another **fraction** : We multiply the dividend with the reciprocal of the divisor.
Example: (2/7) ÷ (5/21) = (2/7) × (21/5) = 6/5.

Decimals

Introduction to Decimal

Decimal numbers are used to represent numbers that are **smaller than the unit 1**. Decimal number system is also known as **base 10 system** since each place value is denoted by a power of 10.

A decimal number refers to a number consisting of the following **two parts:**
(i) **Integral part** (before the decimal point)
(ii) **Fractional Part** (after the decimal point).
These both are separated by a **decimal separator(.)** called the **decimal point**.

A decimal number is written as follows: Example 564.8 or 23.97.
The numbers to the left of the decimal point increase with the order of 10, while the numbers to the right of the point increase with the decrease order of 10.
The above example 564.8 can be read as 'five hundred and sixty-four and eight tenths'.
⇒5×100 + 6×10 + 4×1 + 8×(1/10)

A **fraction** can be written **as a decimal** and vice-versa. Example 3/2 = 1.5 or 1.5 = 15/10 = 3/2.

Multiplication of Decimals

Multiplication of **decimal numbers** with **whole numbers:**
Multiply them as whole numbers. The **product** will contain the **same number of digits** after the decimal point as that of the decimal number.
E.g : 11.3×4 = 45.2

Multiplication of **decimals** with **powers of 10:**
If a decimal is multiplied by a power of 10, then the **decimal point shifts** to the right by the **number of zeros in its power.**
E.g : 45.678×10 = 456.78 (decimal point shifts by 1 place to the right) or, 45.678×1000 = 45678 (decimal point shifts by 3 places to the right)

Multiplication of **decimals** with **decimals:**

Multiply the decimal numbers without decimal points and then give decimal point in the answer as many places same as the total number of places right to the decimal points in both numbers.

E.g :

	23.053
x	6.65
	153.30245

Division of Decimals

Dividing a **decimal number** by a **whole number**:
Example: 45.2/55
Step 1. Convert the Decimal number into Fraction: 45.25= 4525/100
Step 2. Divide the fraction by the whole number: (4525/100) ÷5 = (4525/100) × (1/5) = 9.05

Dividing a **decimal number** by a **decimal number**:
Example 1: 45.25/0.5
Step 1. Convert both the decimal numbers into fractions: 45.25 = 4525/100 and 0.5 = 5/10
Step 2. Divide the fractions: (4525/100) ÷(5/10) = (4525/100) ×(10/5) = 90.5
Example 2:

2.02	208.666
It can be written as :	__103.3
202	20866.6
	202
	__666
	__606
	___606
	___606
	____0

Dividing a **decimal number** by **powers of 10 :**
If a decimal is divided by a power of 10, then the **decimal point shifts** to the **left** by the **number of zeros** present in the **power of 10.**
Example: 98.765÷100=0.98765 Infinity

When the **denominator** in a fraction is **very very small** (almost tending to 0), then the **value of the fraction** tends towards **infinity**.
E.g: 999999/0.000001 = 999999000001 ≈ a very large number, which is considered to be ∞

Types of Fractions

Mainly there are six types of fractions. All these types of fractions are discussed below:

1. Proper Fraction:

In this fraction, the numerator is always less than the denominator. It shows the part of a whole.

2. Improper Fraction:

In this fraction numerator is always more than the denominator and it shows the mixture of whole and a proper fraction.

3. Mixed Fraction:

In this type of fraction we write mixed form as it is the mixture of whole numbers and a fraction.

4. Like Fraction:

In this type, there are fractions with the same denominator.

5. Unlike Fraction:

In this fraction, there are fractions with different denominators.

6. Equivalent Fraction:

The fraction which is proportional to each other is termed as an equivalent fraction.