# BAL BHARATI PUBLIC SCHOOL, PITAMPURA DELHI - 110034 <br> SUBJECT:-MATHEMATICS <br> CHAPTER: - FRACTIONS AND DECIMALS <br> Class - $7^{\text {th }}$ 

## PART-3

## TOPIC: Multiplication of Decimals

## STEP 1: GUIDELINES

Dear Students
You have learnt about decimal numbers in the earlier classes. Let us briefly recall them in this lesson.
Kindly refer to the following link to download the NCERT chapter of this topic in pdf form http://ncert.nic.in/textbook/textbook.htm?gemh1=2-15

## STEP 2: Recapitulation of Decimal Numbers

a) Place value system of decimals:

|  | T | U | D | T | H | T | T |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U | E | N | $E$ | E | U | H | E |
| N | N | 1 | c | N | N | 0 | N |
| D | S | T | 1 | T | D | U |  |
| R |  | S | M | H | R | S | T |
| E |  |  | A | S | E | A | H |
| D |  |  |  |  | D | N | 0 |
| S |  |  | L |  | T | D | U |
|  |  |  | - |  | H | T | S |
|  |  |  | - |  | S | H | A |
|  |  |  |  |  |  | S | N |
|  |  |  |  |  |  |  | D |
|  |  |  |  |  |  |  | T |
|  |  |  |  |  |  |  | H |
|  |  |  |  |  |  |  | 5 |
| 4 | 9 | 0 | - | 7 | 0 | 4 | 2 |

In the above table, the place value expansion of a decimal number is given.
For example, in the number 15.752, the place value of 5 is hundredths.
b) Comparing Decimal numbers

To compare decimal numbers, we first compare the digits on the left of the decimal point, starting from the left most digit. If the digits at the tenths place are also same, then compare the digits at the hundredths place and so on.

## EXAMPLE: -Compare 35.63 and 35.67

35.67 is greater than 35.63 as the digit at its hundredths place is greater.

Similarly, $\quad 20.01<20.1 ; 29.36>19.36$
Kindly refer to the following link to understand more about COMPARISION of decimals: https://www.examfear.com/free-video-lesson/Class-7/Maths/Fractions-and-Decimals/part18/Maths Fractions and Decimals part 18 (Comparing Decimal numbers).htm

## c) Addition and Subtraction of Decimals

We also know how to add and subtract decimals - we convert them as like decimals.

EXAMPLE:a) $21.3+37.35$
b) 29.872-4.56
21.30
$+37.35$
58.65
29.872
$\begin{array}{r}-4.560 \\ \hline\end{array}$
25.312

Kindly refer to the following link to understand more about addition and subtraction of decimals: https://www.examfear.com/free-video-lesson/Class-7/Maths/Fractions-and-Decimals/part19/Maths Fractions and Decimals part 19 (Decimal numbers: Addition and Subtraction).htm (TILL 5:50)

## STEP 3: Assignment

Do the following NCERT questions of Exercise 2.5 in your Maths notebook-
Q1(i,iii,v), Q2(i,iii, v) , Q3(ii) , Q4 (ii,iii) , Q5(ii,iv) , Q6(ii,iv), Q7, Q8, Q9

## STEP 4: Multiplication of Decimals

> To multiply two decimal numbers, we first multiply them as whole numbers.
> Count the number of digits to the right of the decimal point in both the decimal numbers.
> Add the numbers of digits counted. Put the decimal point in the product by counting the digits from its rightmost place. The count should be the sum obtained earlier.
> For example: $0.5 \times 0.7=0.35$
> To multiply a decimal number by 10; 100 or 1000, we move the decimal point in the number to the right by as many places as there are zeroes over 1 .

For example: $0.53 \times 10=5.3 ; 0.53 \times 100=53 ; 0.53 \times 1000=530$
Kindly refer to the following link to understand more about multiplication of decimals: DECIMAL WITH DECIMAL NUMBER -

EXAMPLE 1- https://www.youtube.com/watch?v=3H9DYeR5Wmg (TILL 2:40)
EXAMPLE 2- https://www.youtube.com/watch?v=iscAHyfe3Pg (TILL 2:02)
MULTIPLYING WITH 10, 100, 1000- https://www.youtube.com/watch?v=qBC5-1HQolc

## STEP 5: Assignment

Q1 (all even parts), Q2, Q3(all even parts), Q4, Q5(all even parts)

## Practice questions

Q1.Find:
(a) $2 \times 1.3$
(b) $123 \times 2.3$
(c) $9 \times 0.08(\mathrm{~d}) 0.17 \times 4.92$

Q2.Simplify:
(a) $0.2852 \times 100$ (b) $1.919 \times 10$
(c) $10.006 \times 1000$ (d) $63.501 \times 100$

Q3.Add
(a)20.15, 0.083 and 6.9 (b) $0.069,0.008,0.07$

Q4.Subtract:
(a) 5.158 from 7.9
(b) 0.00084 kg from 0.05 kg

