SUBJECT:-MATHEMATICS CLASS-7

CHAPTER:- FRACTIONS AND DECIMALS

PART -2

TOPIC :MULTIPLICATION OF FRACTIONS

STEP1 :- GUIDELINES :

Dear Students

We recalled addition and subtraction of fractions in previous lesson plan. We also studied about multiplication of a fraction with a whole number. Now we will study about the following subtopics of multiplication of fractions.

- ❖ Multiplication of a fraction by a fraction
- ❖ Division of fractions

Kindly refer to the following link to download the NCERT link of this topic in pdf form: http://ncert.nic.in/textbook/textbook.htm?gemh1=2-15

STEP 2 :- Subtopic 1. Multiplication of a fraction by a fraction

Examples :
1.   2.

$$\frac{2}{5} \times \frac{6}{7} = \frac{2 \times 6}{5 \times 7} = \frac{12}{35}$$

$$\frac{1}{4} \times \frac{2}{3} = \frac{1 \times 2}{4 \times 3} = \frac{2}{12} = \text{reduces to} \quad \frac{1}{6}$$

$$1\frac{3}{4} \times 2\frac{1}{2} = ? \qquad 1 \times 4 + 3 = 7 \qquad 2 \times 2 + 1 = 5$$

$$\frac{7}{4} \times \frac{5}{2} = \frac{35}{8} = 4\frac{3}{8}$$

Refer to the following link to understand more about multiplying fractions:https://www.examfear.com/free-video-lesson/Class-7/Maths/Fractions-and-Decimals/part-

(7:21-TILL the END)

STEP 3 :- Attempt the following questions from NCERT in your Maths notebook
     Ex.2.3
Q1(i) , Q2 (all even parts) , Q3 (all even parts)

STEP 4:- Division of Fractions

Reciprocal of a fraction: The non-zero numbers, whose product with each other is 1, are called the reciprocals of each other.

To find the reciprocal of any fraction $\frac{a}{b}$ we can flip it as $\frac{b}{a}$

For Example:- 1)Reciprocal of fraction $\frac{2}{5}$ is $\frac{5}{2}$

     2) Reciprocal of 3 is $\frac{1}{3}$

For any two fractions $\frac{a}{b}$ and $\frac{c}{d}$

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

For more examples on division of fractions kindly refer to the following link:https://www.khanacademy.org/math/arithmetic/fraction-arithmetic/arith-review-dividing-fractions/v/another-dividing-fractions-example

STEP 5:- Assignment

Attempt the following exercise questions from NCERT in your Maths notebook

     Ex2.4 Q1,Q2,Q3,Q4(do even parts of all the questions)

STEP 6:- Practice Questions

1. Find the product of the fractions:

(i) $4/7 \times 14/25$

(ii) $7\frac{1}{2} \times 2\frac{4}{15}$

(iii) $3\frac{6}{7} \times 4\frac{2}{3}$

2. Which is greater?

1/2 of 6/7 or 2/3 of 3/7

3. Dividing fractions:

(i) $3/8 \div 4$

(ii) $9/16 \div 6$

(iii) $1/2 \div 2/5$

(iv) $3\frac{1}{4} \div 2$