



MONTH : SEPTEMBER

SESSION : 4

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 9

CHAPTER NAME : FRACTION

SUB-TOPIC : MULTIPLICATION OF FRACTIONS

EXERCISE 9 C

CHANGING YOUR TOMORROW

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LEARNING OBJECTIVE :

Enable the students

- **To multiply a fraction by another fraction.**
- **To reduce to their lowest term**

Multiplication of Fractions



Multiply the numerators

$$\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$$

Multiply the denominators

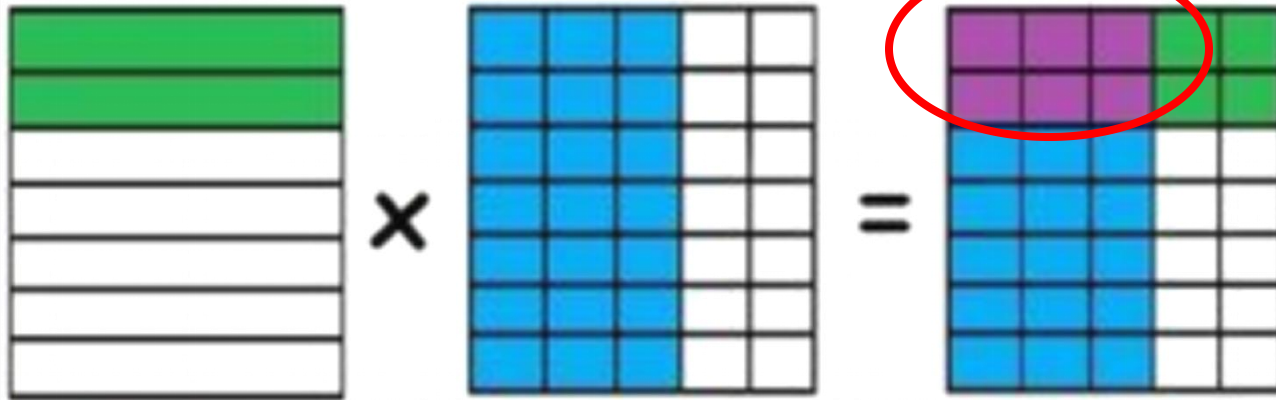
$$\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$$

Reduce the fraction if necessary

$$\frac{6}{20} = \frac{3}{10}$$



Multiplying Fractions



$$\frac{2}{7} \times \frac{3}{5} = \frac{6}{35}$$

$$\frac{2}{7} \times \frac{3}{5} = \frac{6}{35}$$



Multiplication of Fractions



Example: 1

$$\frac{8}{15} \times \frac{2}{3} = \frac{8 \times 2}{15 \times 3} = \frac{16}{45}$$

Example: 2

$$\frac{9}{16} \times \frac{8}{27} = \frac{1 \cancel{9} \times 8^1}{2 \cancel{16} \times \cancel{27}_3} = \frac{1}{6}$$



Multiplication of Fractions

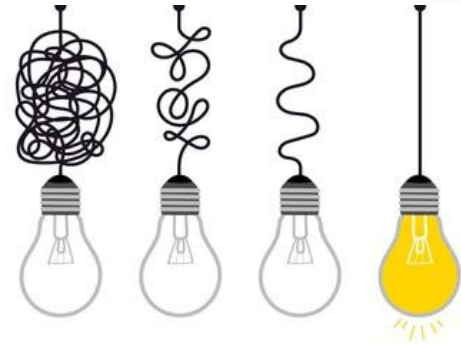


Example: 3

$$3\frac{5}{7} \times 2\frac{4}{5}$$

$$= \frac{26}{7} \times \frac{14}{5}$$

$$= \frac{52}{5} = 10\frac{2}{5}$$





Example: 1

$$\begin{aligned} & 2\frac{3}{5} \times 1\frac{1}{4} \times \frac{8}{13} \\ &= \overset{1}{\cancel{13}} \times \overset{5}{\cancel{4}} \times \overset{8}{\cancel{13}} \overset{2}{\cancel{1}} \\ &= \frac{1 \times 1 \times 2}{1 \times 1 \times 1} \\ &= \frac{2}{1} \\ &= 2 \end{aligned}$$





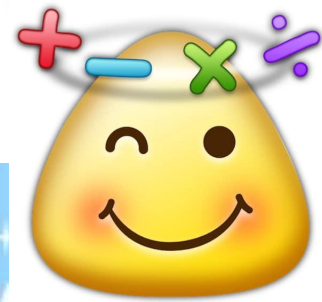
Example: 2

$$\frac{3}{4} \times \frac{5}{7} \times \frac{9}{11}$$

$$\frac{3 \times 5 \times 9}{4 \times 7 \times 11} = \frac{135}{308}$$



Properties of Multiplication



Changing the order of the numbers doesn't change the product.

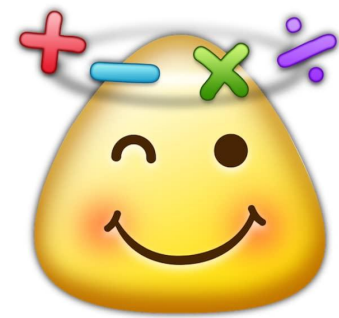
The product of a fraction and 0 is 0.

The product of a fraction and 1 of the fraction itself.

Multiplying Fractions



EXERCISE : 9 C



1. Multiply

a. $\frac{5}{28} \times 7$

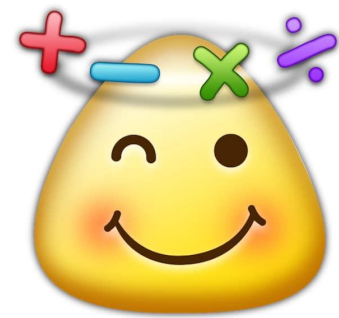
$$= \frac{5 \times \cancel{7}}{\cancel{4}^4 \times 1} = \frac{5}{4} = 1 \frac{1}{4}$$

b. $\frac{20}{21} \times \frac{7}{10} \times \frac{1}{2}$

$$= \frac{\cancel{2}^2}{\cancel{20}^3 \times \cancel{21}} \times \frac{\cancel{7}}{\cancel{10}} \times \frac{1}{\cancel{2}} = \frac{1}{3}$$



EXERCISE : 9 C



1. Multiply

$$\begin{aligned} \text{c. } & \frac{4}{5} \times \frac{11}{16} \times \frac{5}{8} \\ = & \frac{\cancel{4} \times 11 \times \cancel{5}}{\cancel{5} \times \cancel{16} \times 8} = \frac{11}{32} \end{aligned}$$

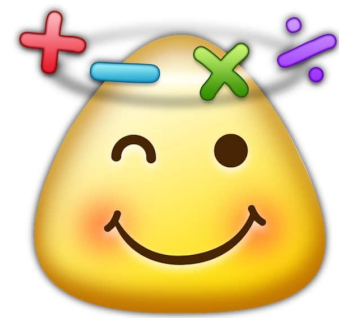
4

$$\begin{aligned} \text{d. } & \frac{17}{24} \times \frac{3}{34} \times \frac{6}{7} \\ = & \frac{\cancel{17} \times 3 \times \cancel{6}}{\cancel{24} \times \cancel{34} \times 7} = \frac{3}{56} \end{aligned}$$

4 **2**



EXERCISE : 9 C



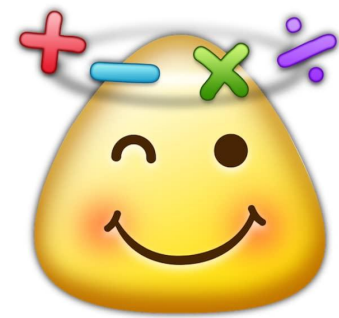
1. Multiply

$$\begin{aligned} \text{e. } & \frac{5}{9} \times \frac{5}{12} \times \frac{24}{25} \\ & = \frac{\cancel{5} \times \cancel{5} \times \overset{2}{\cancel{24}}}{9 \times \cancel{12} \times \underset{5}{\cancel{25}}} = \frac{2}{9} \end{aligned}$$

$$\text{f. } \frac{4}{5} \times 1 \frac{6}{7} \times 0 = 0$$



EXERCISE : 9 C



1. MULTIPLY

$$\begin{aligned} \text{g. } & \frac{1}{4} \times 2\frac{1}{2} \times \frac{4}{5} \times 3\frac{1}{2} \times \frac{4}{5} \\ & = \frac{1}{\cancel{4}} \times \frac{\cancel{5}}{\cancel{2}} \times \frac{\cancel{4}}{\cancel{5}} \times \frac{7}{\cancel{2}} \times \frac{\cancel{4}}{\cancel{5}} \\ & = \frac{7}{5} = 1\frac{2}{5} \end{aligned}$$





- **Complete exercise 9 C in the notebook.**

The logo for 'Learning Outcomes' features the words 'Learning' and 'Outcomes' in a bold, black, sans-serif font with a yellow outline. A small red apple with a green leaf is positioned above the letter 'i' in 'Learning'. To the left of the word 'Outcomes' is a blue graduation cap with a tassel.

Learning Outcomes

Students are able to multiply a fraction by another fraction and reduce the same to its lowest term.

THANKING YOU
ODM EDUCATIONAL GROUP