



$55/60$



$11/12$

Multiplication

And

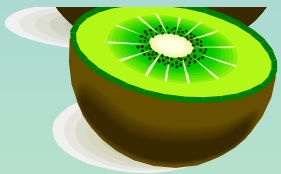


$1/8$



$1/12$

Division of Fraction



$1/2$



$2/7$

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WHAT'S
ONE SIXTH OF
THREE QUARTERS?

$$\frac{1}{6} \times \frac{3}{4}$$

[Empty thought bubble]



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WHAT'S
ONE SIXTH OF
THREE QUARTERS?

IT'S SO SMALL
WHY BOTHER?

$$\frac{1}{6} \times \frac{3}{4}$$

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WHAT'S
ONE SIXTH OF
THREE QUARTERS?

How to solve
sir?

$$\frac{1}{6} \times \frac{3}{4}$$



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This is our
lesson for today

Ahhhhh....

$$\frac{1}{6} \times \frac{3}{4}$$

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What is $\frac{1}{6} \times \frac{3}{4}$?

Solution:

$$\frac{1}{6} \times \frac{3}{4} = \frac{1 \times 3}{6 \times 4} = \frac{3}{24}$$

$$= \frac{1}{8}$$

Divide: $\frac{4}{5} \div \frac{1}{2}$

Solution:

$$\frac{4}{5} \div \frac{1}{2} = \frac{4 \times 2}{5 \times 1} = \frac{8}{5} = 1\frac{3}{5}$$

Examples:

Multiply the following and write your answer in simplest form.

$$1. \frac{3}{7} \times \frac{2}{5}$$

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

$$= \frac{6}{35}$$

$$2. \frac{6}{15} \times \frac{3}{4}$$

$$= \frac{6 \times 3}{15 \times 4}$$

$$= \frac{18}{60}$$

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

Divide *the following* and write your answer in simplest form.

$$1. \frac{8}{11} \div \frac{2}{3}$$

$$= \frac{8}{11} \div \frac{2}{3}$$

$$= \frac{8 \times 3}{11 \times 2}$$

$$= \frac{24}{22}$$

$$= \frac{12}{11} \text{ or } 1 \frac{1}{11}$$

$$2. 20 \div \frac{4}{5}$$

$$= 20 \div \frac{4}{5}$$

$$= \frac{20 \times 5}{4}$$

$$= \frac{100}{4}$$

$$= 25$$

Consider the ff. situation.

1. A cake is divided into 10 equal slices. Kim ate $\frac{3}{5}$ of $\frac{1}{2}$ of the cake. What part of the whole cake did Kim eat?



2. Mirriam made 5 pizzas for some street children. She cut up each pizza into 8 triangular pieces. If a child can only take a piece, how many children can he feed?



A cake is divided into 10 equal slices. Kim ate $\frac{3}{5}$ of $\frac{1}{2}$ of the cake. What part of the whole cake did Kim eat?

Solution:

$$\frac{3}{5} \times \frac{1}{2} = \frac{3 \times 1}{5 \times 2} = \frac{3}{10}$$

Kim ate $\frac{3}{10}$ of the whole cake.



Miriam made 5 pizzas for some street children. She cut up each pizza into 8 triangular pieces. If a child can only take a piece, how many children can he feed?

Solution:

The equation is $5 \div \frac{1}{8}$

$$5 \div \frac{1}{8} = \frac{5 \times 8}{1} = 40$$

Since there are 8 eighths in one pizza, there will be $5 \times 8 = 40$ triangular pieces and hence, 40 children will be fed.

Important Rules to Remember in Multiplication and Division of Fractions

1. To multiply fractions, simply multiply the numerators and multiply the denominators.

In symbol, $\frac{a}{b} \times \frac{c}{d} \equiv \frac{ac}{bd}$ where b and d are not equal to zero.

2. To divide fractions, simply apply the cross multiplication

In symbol, $\frac{a}{b} \div \frac{c}{d} \equiv \frac{ad}{bc}$ where b, c and d are not equal to zero.

Exercises:

Multiply or divide the following fractions.

1. $\frac{4}{6} \times \frac{1}{7}$

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

3. $\frac{2}{5} \div \frac{4}{7}$

4. $\frac{9}{10} \div \frac{3}{8}$

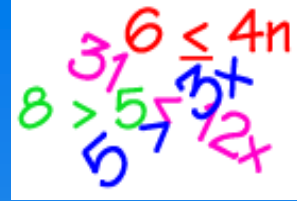
Solve the ff:

1. *Mrs. Cruz bought egg pie. She gave $\frac{1}{8}$ to her daughter and $\frac{1}{4}$ to the older one. What part of the pie was consumed and what part was left?*

2. *How many thirds are there in six-fifths?*



OPERATIONS ON FRACTIONS



I. To add or subtract similar fractions

Add or subtract the numerators ay-ay alilay-alilay

Then copy the common denominator

Then simplify the result Ay- ay

II. To add or subtract dissimilar fractions

Times the LCD to each fraction ay – ay alilay-alilay

Simplify and add or subtract the fractions

All over the LCD Ay-ay.....

III. In multiplying fractions

Multiply the numerators ay – ay alilay - alilay

Multiply the denominators

Then simplify the result ay -ay

IV. In dividing what they call fractions

Apply the cross multiplication (2x)



. OPERATIONS ON FRACTIONS

I. PERFORM THE INDICATED OPERATIONS OF THE FOLLOWING SIMILAR FRACTIONS

a) $1/5 + 3/5 =$

b) $7/10 + 2/10$

c) $5/15 + 6/15$

d) $8/12 - 7/12 =$

e) $12/20 - 8/20$

f) $15/21 - 9/21$

II. FIND THE SUM AND DIFFERENCE OF THE FOLLOWING DISSIMILAR FRACTIONS

$15/20 + 7/10 =$

b) $9/16 + 3/8 =$

c) $4 + 3/4 =$

d) $8/9 - 2/6 =$

e) $13/15 - 9/30$

f) $16 - 10/14 =$

III. FIND THE PRODUCT

a. $2/9 \times 5/6 =$ b) $3/7 \times 2/5 =$ c) $8 \times 5/16 =$ d) $6/8 \times 4/15 =$

IV. FIND THE QUOTIENT

a) $14/15 \div 5/7 =$

b) $18 \div 4/9 =$

c) $18 \div 4/9 =$

d) $21/25 \div 5/7 =$



THANK YOU
AND
MABUHAY!