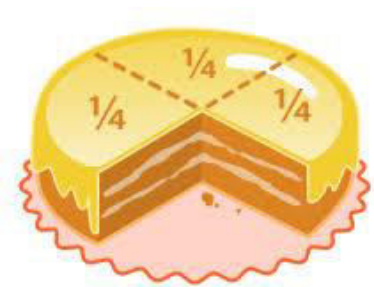


SESSION : 9
CLASS : IV
SUBJECT : MATHEMATICS
CHAPTER NUMBER : 11
CHAPTER NAME : FRACTIONS
**SUBTOPIC : INTRODUCTION OF FRACTIONS
AND WRITING FRACTIONS IN
WORDS, EX-11 A**

CHANGING YOUR TOMORROW

WRITING FRACTIONS IN WORDS

The **numerator** of a fraction is simply written in words while the **denominator** is written in the ordinal, plural form except in cases where the **denominator** is 2. the **numerator** and **denominator** are separated by a **hyphen** (-).

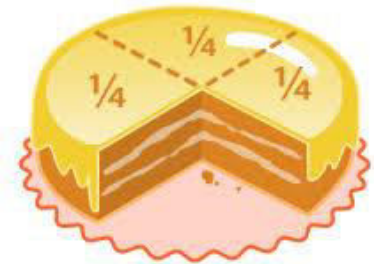


WRITING FRACTIONS IN WORDS

Example - 1

$$\frac{7}{8}$$

Will be written as **seven-eighths**.



WRITING FRACTIONS IN WORDS

Example - 2

$$\frac{1}{2}$$

For fractions having 2 as their denominators, the word half is used after the hyphen.

Will be written as **one-half** and not one-second.

Note: for fraction with denominator 4, '**quarters**' can also be used after the hyphen.



WRITING FRACTIONS IN WORDS

Example - 3

$$\frac{3}{4}$$

Will be written as **three-quarters** or **three-fourths**.



WRITING FRACTIONS IN WORDS

Example - 4

Write the following fractions in words.

(a) $\frac{3}{4}$

(b) $\frac{5}{13}$

(c) $\frac{7}{12}$

Answer

(a) Three-fourths

(b) Five-thirteenths

(c) seven-twelfths

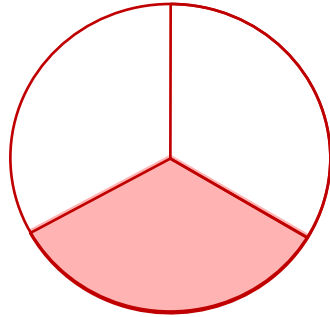


FRACTION

Exercise – 11(A)

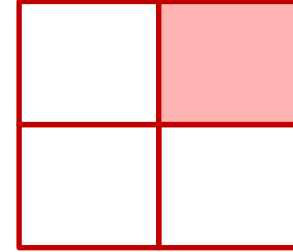
1. Write the fraction shaded in each set:

(a)

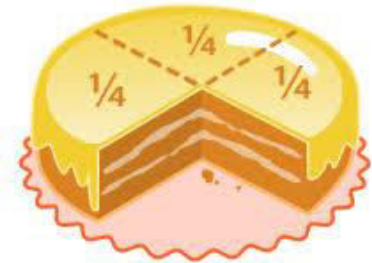


$\frac{1}{3}$

(b)



$\frac{1}{4}$

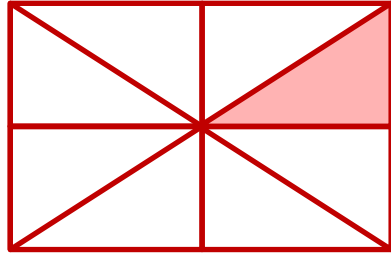


FRACTION

Exercise – 11(A)

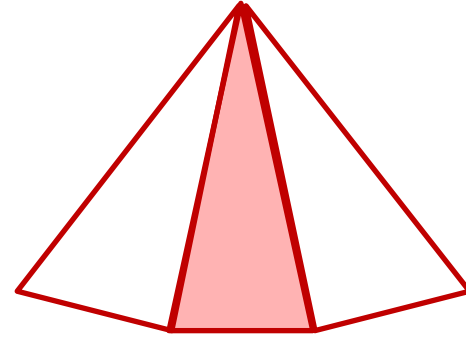
1. Write the fraction shaded in each set:

(c)



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

(d)



$$\frac{1}{3}$$

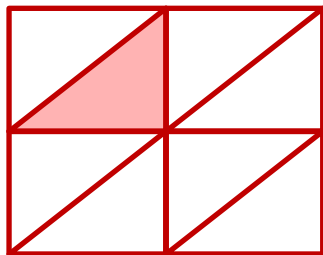


FRACTION

Exercise – 11(A)

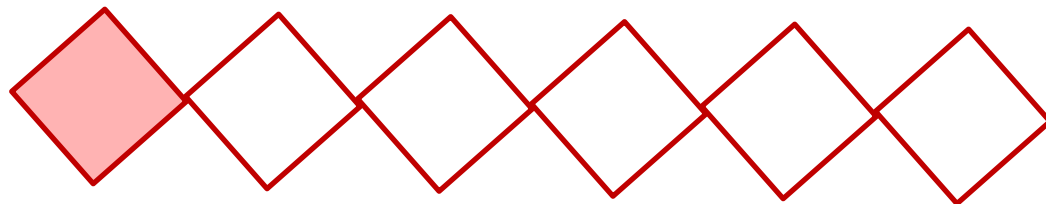
1. Write the fraction shaded in each set:

(e)



$\frac{1}{8}$

(f)



$\frac{1}{6}$

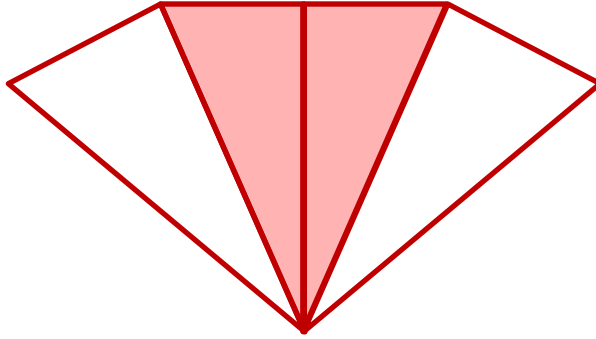


FRACTION

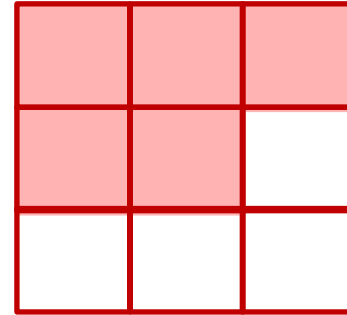
Exercise – 11(A)

2. Represent the fractions in the given figures by colouring:

(a) $\frac{2}{4}$



(b) $\frac{5}{9}$

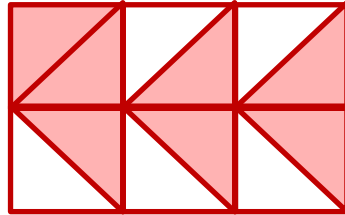


FRACTION

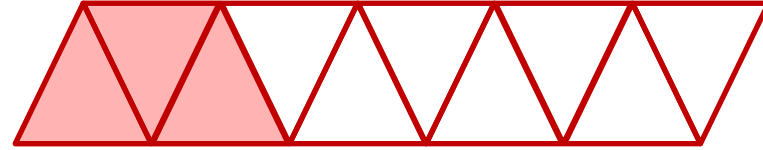
Exercise – 11(A)

2. Represent the fractions in the given figures by colouring:

(c) $\frac{7}{12}$



(d) $\frac{3}{10}$

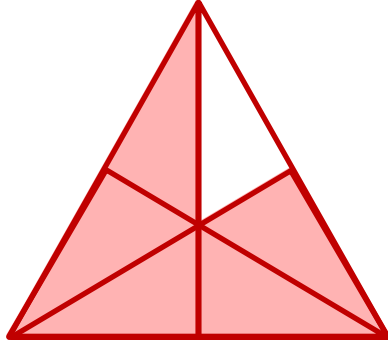


FRACTION

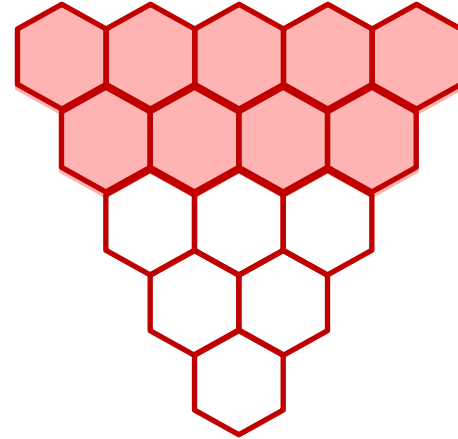
Exercise – 11(A)

2. Represent the fractions in the given figures by colouring:

(e) $\frac{5}{6}$



(f) $\frac{9}{15}$



Exercise – 11(A)

3. Write the fractions whose numerators (N) and denominators (D) are given below:

(a) $N = 5$ $D = 7$

Fractions

$$\frac{5}{7}$$

(b) $N = 2$ $D = 3$

$$\frac{2}{3}$$

(c) $N = 7$ $D = 9$

$$\frac{7}{9}$$



Exercise – 11(A)

3. Write the fractions whose numerators (N) and denominators (D) are given below:

(d) $N = 11$ $D = 12$

Fractions

$$\frac{11}{12}$$

(e) $N = 4$ $D = 5$

$$\frac{4}{5}$$

(f) $N = 5$ $D = 9$

$$\frac{5}{9}$$



Exercise – 11(A)

3. Write the fractions whose numerators (N) and denominators (D) are given below:

(g) N = 6 D = 11

Fractions

$$\frac{6}{11}$$

(h) N = 8 D = 13

$$\frac{8}{13}$$

(i) N = 3 D = 4

$$\frac{3}{4}$$



FRACTION

Exercise – 11(A)

3. Write the fractions whose numerators (N) and denominators (D) are given below:

(j) $N = 9$ $D = 17$

Fractions

$$\frac{9}{17}$$



FRACTION

Exercise – 11(A)

4. Write the fractions in numeral form:

(a) Three-fifths

$$\frac{3}{5}$$

(b) Nine-elevenths

$$\frac{9}{11}$$

(c) Three-fourteenths

$$\frac{3}{14}$$



FRACTION

Exercise – 11(A)

4. Write the fractions in numeral form:

(d) Nine-fourteenths

$$\frac{9}{14}$$

(e) Three-sevenths

$$\frac{3}{7}$$

(f) Eleven-twelfths

$$\frac{11}{12}$$



FRACTION

Exercise – 11(A)

5. Write the given fractions in words:

(a) $\frac{2}{7}$

Two-sevenths

(b) $\frac{3}{8}$

Three-eighths

(c) $\frac{7}{9}$

Seven-ninths



FRACTION

Exercise – 11(A)

5. Write the given fractions in words:

(d) $\frac{11}{13}$

Eleven-thirteenths

(e) $\frac{4}{15}$

Four-fifteenths

(f) $\frac{1}{2}$

One-half



LEARNING OUTCOME:

Students are able to understand the meaning of fractions and how to write the fractions in words.

THANKING YOU
ODM EDUCATIONAL GROUP

SESSION : 10
CLASS : IV
SUBJECT : MATHEMATICS
CHAPTER NUMBER : 11
CHAPTER NAME : FRACTIONS
SUBTOPIC : TYPES OF FRACTIONS, EX-11 B
Q.NO. 1, 2 AND 3

CHANGING YOUR TOMORROW

TYPES OF FRACTIONS

UNIT FRACTIONS

Unit **fractions** are those whose **numerator** is always **1**.

Unit Fractions



$$\frac{1}{2}$$



$$\frac{1}{4}$$



$$\frac{1}{7}$$



$$\frac{1}{16}$$

TYPES OF FRACTIONS

UNIT FRACTIONS

EXAMPLE :

Consider fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{7}$, $\frac{1}{12}$, $\frac{1}{15}$, etc. they are all unit fractions.

Unit Fractions



$\frac{1}{2}$



$\frac{1}{4}$



$\frac{1}{7}$

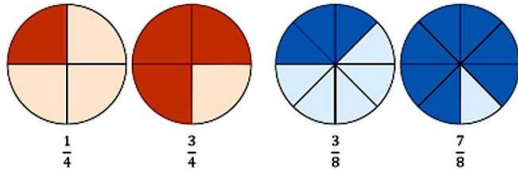


$\frac{1}{16}$

TYPES OF FRACTIONS

LIKE FRACTIONS

Like **fractions** are those **fractions** which have the same **denominator**.



Like fractions because the pies are both split into 4 pieces and the fractions share the same denominator.

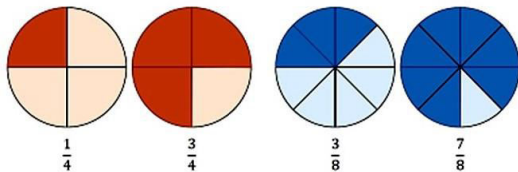
Like fractions because the pies are both split into 8 pieces and the fractions share the same denominator.

TYPES OF FRACTIONS

LIKE FRACTIONS

EXAMPLE :

Consider fractions $\frac{7}{15}$, $\frac{9}{15}$, $\frac{11}{15}$, $\frac{12}{15}$, etc. they are all like fractions as they have the same denominator i.e. 15.



Like fractions because the pies are both split into 4 pieces and the fractions share the same denominator.

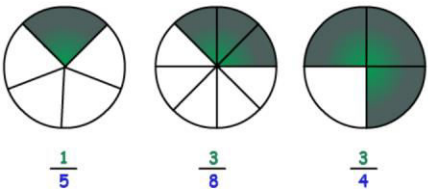
Like fractions because the pies are both split into 8 pieces and the fractions share the same denominator.

TYPES OF FRACTIONS

UNLIKE FRACTIONS

Unlike fraction are those **fractions** which have different **denominators**.

Unlike fraction



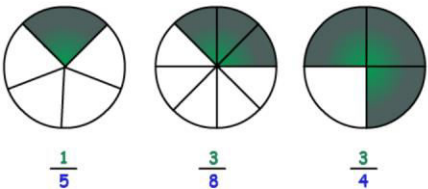
TYPES OF FRACTIONS

UNLIKE FRACTIONS

EXAMPLE :

Consider fractions $\frac{3}{5}$, $\frac{2}{8}$, $\frac{4}{7}$, $\frac{9}{11}$, etc. they are all unlike fractions as they have the different denominator.

Unlike fraction



TYPES OF FRACTIONS

Exercise – 11(B)

1. Circle the unit fractions in the following fractions:

(a) $\frac{5}{23}$, $\frac{1}{2}$, $\frac{8}{11}$, $\frac{1}{4}$

(b) $\frac{6}{13}$, $\frac{1}{5}$, $\frac{8}{15}$, $\frac{9}{11}$

(c) $\frac{1}{2}$, $\frac{3}{4}$, $\frac{4}{5}$, $\frac{5}{7}$

Unit Fractions



$\frac{1}{2}$



$\frac{1}{4}$



$\frac{1}{7}$



$\frac{1}{16}$

TYPES OF FRACTIONS

Exercise – 11(B)

1. Circle the unit fractions in the following fractions:

(d) $\frac{6}{7}$ $\frac{8}{10}$ $\frac{1}{7}$ $\frac{9}{10}$

(e) $\frac{7}{13}$ $\frac{2}{3}$ $\frac{3}{4}$ $\frac{1}{9}$

Unit Fractions



$\frac{1}{2}$



$\frac{1}{4}$



$\frac{1}{7}$



$\frac{1}{16}$

TYPES OF FRACTIONS

Exercise – 11(B)

2. Find out the unlike fractions from the given fractions:

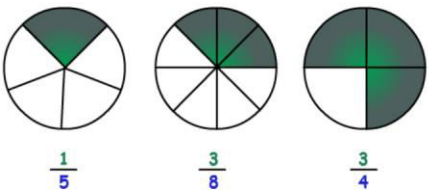
Unlike fractions

$$(a) \quad \frac{2}{3'} \quad \frac{7}{15'} \quad \frac{4}{15'} \quad \frac{2}{15'} \quad = \quad \frac{2}{3}$$

$$(b) \quad \frac{4}{11'} \quad \frac{9}{11'} \quad \frac{10}{11'} \quad \frac{2}{5'} \quad = \quad \frac{2}{5}$$

$$(c) \quad \frac{2}{9'} \quad \frac{7}{9'} \quad \frac{8}{9'} \quad \frac{3}{4'} \quad = \quad \frac{3}{4}$$

Unlike fraction



TYPES OF FRACTIONS

Exercise – 11(B)

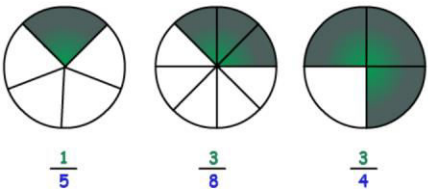
2. Find out the unlike fractions from the given fractions:

Unlike fractions

$$(d) \quad \frac{2}{3'} \quad \frac{1}{8'} \quad \frac{5}{8'} \quad \frac{7}{8'} \quad = \quad \frac{2}{3}$$

$$(e) \quad \frac{6}{12'} \quad \frac{1}{6'} \quad \frac{2}{6'} \quad \frac{5}{6'} \quad = \quad \frac{6}{12}$$

Unlike fraction



TYPES OF FRACTIONS

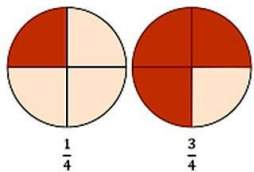
Exercise – 11(B)

3. Circle the like fractions in the following fractions:

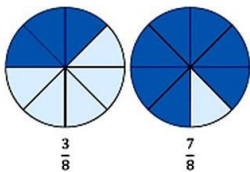
(a) $\frac{7}{13'}$ $\frac{5}{13'}$ $\frac{9}{13'}$ $\frac{1}{7'}$ $\frac{2}{9'}$ $\frac{8}{13'}$

(b) $\frac{1}{4'}$ $\frac{2}{4'}$ $\frac{3}{4'}$ $\frac{6}{7'}$ $\frac{5}{9'}$ $\frac{8}{11'}$

(c) $\frac{2}{5'}$ $\frac{3}{5'}$ $\frac{7}{9'}$ $\frac{1}{5'}$ $\frac{4}{5'}$



Like fractions because the pies are both split into 4 pieces and the fractions share the same denominator.



Like fractions because the pies are both split into 8 pieces and the fractions share the same denominator.

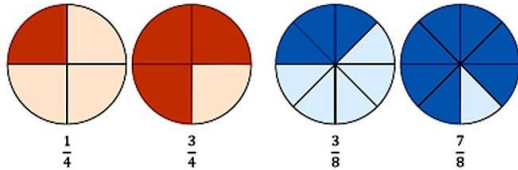
TYPES OF FRACTIONS

Exercise – 11(B)

3. Circle the like fractions in the following fractions:

(d) $\frac{1}{6'}$ $\frac{3}{6'}$ $\frac{4}{8'}$ $\frac{9}{11'}$ $\frac{4}{6'}$

(e) $\frac{1}{7'}$ $\frac{1}{4'}$ $\frac{2}{7'}$ $\frac{2}{3'}$ $\frac{4}{5'}$ $\frac{3}{7'}$



Like fractions because the pies are both split into 4 pieces and the fractions share the same denominator.

Like fractions because the pies are both split into 8 pieces and the fractions share the same denominator.

LEARNING OUTCOME:

Students are able to understand the different types of fractions.

THANKING YOU
ODM EDUCATIONAL GROUP

SESSION : 11
CLASS : IV
SUBJECT : MATHEMATICS
CHAPTER NUMBER : 11
CHAPTER NAME : FRACTIONS
SUBTOPIC : EQUIVALENT FRACTIONS AND
FINDING EQUIVALENT FRACTIONS

CHANGING YOUR TOMORROW

TYPES OF FRACTIONS

EQUIVALENT FRACTIONS

⑥

Equivalent fractions are those **fractions** which can be **simplified** to the same **fraction** i.e. **fraction** that represent the same of the whole.

⑥

We can simplify a **fraction** by dividing both the **numerator** and the **denominator** of the **fraction** by the **same** number.

$\frac{1}{2}$



1 out of 2 parts

$\frac{2}{4}$



2 out of 4 parts

$\frac{3}{6}$



3 out of 6 parts

$\frac{4}{8}$



4 out of 8 parts

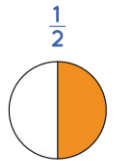
EQUIVALENT FRACTIONS

EQUIVALENT FRACTIONS

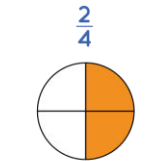
EXAMPLE : Consider the **fraction** $\frac{8}{24}$. Here, the **denominator** i.e. **24** is divisible by the **numerator 8**.

Therefore, upon dividing,

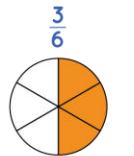
We get –



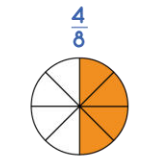
1 out of 2 parts



2 out of 4 parts



3 out of 6 parts



4 out of 8 parts

$$\frac{\cancel{8}^1}{\cancel{24}_3} = \frac{1}{3} \quad \left(\frac{8 \div 8}{24 \div 8} = \frac{1}{3} \right)$$

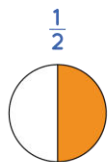
Here, $\frac{1}{3}$ is the simplified form of $\frac{8}{24}$.

EQUIVALENT FRACTIONS

EQUIVALENT FRACTIONS

EXAMPLE : Now consider two fractions $\frac{6}{20}$ and $\frac{15}{50}$.

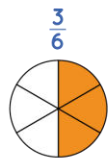
Simplify both the **fractions**



1 out of 2 parts



2 out of 4 parts



3 out of 6 parts



4 out of 8 parts

$$\frac{6 \div 2}{20 \div 2} = \frac{\cancel{6}^3}{\cancel{20}_{10}} = \frac{3}{10} \quad \text{[divided by 2]}$$

$$\frac{15 \div 5}{50 \div 5} = \frac{\cancel{15}^3}{\cancel{50}_{10}} = \frac{3}{10} \quad \text{[divided by 5]}$$

EQUIVALENT FRACTIONS

EQUIVALENT FRACTIONS

EXAMPLE :

Since both of these **fractions** can be **simplified** to $\frac{3}{10}$, they are **equivalent fractions**.

$\frac{1}{2}$



1 out of 2 parts

$\frac{2}{4}$



2 out of 4 parts

$\frac{3}{6}$



3 out of 6 parts

$\frac{4}{8}$



4 out of 8 parts

EQUIVALENT FRACTIONS

EQUIVALENT FRACTIONS

$\frac{1}{2}$



1 out of 2 parts

$\frac{2}{4}$



2 out of 4 parts

$\frac{3}{6}$



3 out of 6 parts

$\frac{4}{8}$



4 out of 8 parts

Another quick to check whether two or more **fractions** are **equivalent** is to multiply the **numerator** of the first **fraction** by the **denominator** of the second **fraction** and to multiply the **denominator** of the first **fraction** by the **numerator** of the second **fraction**. If both the products are the same, then the **fractions** are **equivalent**.

EQUIVALENT FRACTIONS

EQUIVALENT FRACTIONS

EXAMPLE : Consider the $\frac{6}{20}$ and $\frac{15}{50}$ again.

Multiply as shown by the arrows

$$\begin{array}{ccc} 6 & \xrightarrow{\quad} & 15 \\ \frac{6}{20} & \xrightarrow{\quad} & \frac{15}{50} \\ 20 & \xrightarrow{\quad} & 50 \end{array}$$

$$6 \times 50 = 300 \text{ and } 20 \times 15 = 300$$

$\frac{1}{2}$



1 out of 2 parts

$\frac{2}{4}$



2 out of 4 parts

$\frac{3}{6}$



3 out of 6 parts

$\frac{4}{8}$



4 out of 8 parts

Since, the answer is 300 in both the cases, $\frac{6}{20}$ and $\frac{15}{50}$ are **equivalent fractions.**

EQUIVALENT FRACTIONS

EQUIVALENT FRACTIONS

EXAMPLE : Are $\frac{7}{15}$ and $\frac{9}{11}$ equivalent fractions?

ANSWER: Multiple as shown $\frac{7}{15} \begin{matrix} \nearrow & \searrow \\ \searrow & \nearrow \end{matrix} \frac{9}{11}$

$$7 \times 11 = \mathbf{77}$$

$$15 \times 9 = \mathbf{135}$$

Since, the product are not equal, $\frac{7}{15}$ and $\frac{9}{11}$ are not equivalent fractions.

$\frac{1}{2}$



1 out of 2 parts

$\frac{2}{4}$



2 out of 4 parts

$\frac{3}{6}$



3 out of 6 parts

$\frac{4}{8}$



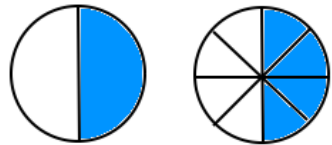
4 out of 8 parts

EQUIVALENT FRACTIONS

FINDING EQUIVALENT FRACTIONS

To find the equivalent **fractions** of a given **fraction**, we multiply or divide the **numerator** and the **denominator** of the **fraction** by the same number other than **zero** or **one**.

Equivalent fractions



$$\frac{1}{2} = \frac{4}{8}$$

$$0.5 = 0.5$$

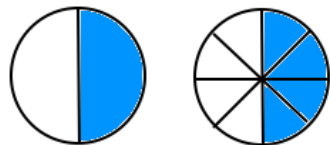
EQUIVALENT FRACTIONS

FINDING EQUIVALENT FRACTIONS

EXAMPLE : 1 Find the equivalent fractions of $\frac{2}{13}$.

ANSWER: Equivalent fractions of $\frac{2}{13}$ are: $\frac{2 \times 2}{13 \times 2} = \frac{4}{26}$; $\frac{2 \times 3}{13 \times 3} = \frac{6}{39}$
; $\frac{2 \times 4}{13 \times 4} = \frac{8}{52}$; $\frac{2 \times 5}{13 \times 5} = \frac{10}{65}$; etc.

Equivalent fractions



$$\frac{1}{2} = \frac{4}{8}$$

$$0.5 = 0.5$$

For more **equivalent fractions** of $\frac{2}{13}$, we can further multiply the **numerator** and **denominator** by 6, 7, 8, 9, 10,..... etc.,

EQUIVALENT FRACTIONS

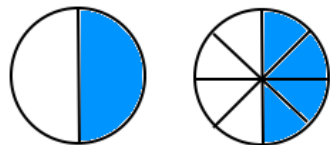
FINDING EQUIVALENT FRACTIONS

EXAMPLE : 2 Find two equivalent fractions of $\frac{16}{20}$.

ANSWER: Equivalent fractions of $\frac{16}{20}$ will be:

$$\frac{16 \div 2}{20 \div 2} = \frac{8}{10} ; \frac{16 \div 4}{20 \div 4} = \frac{4}{5} ; \text{etc.}$$

Equivalent fractions



$$\frac{1}{2} = \frac{4}{8}$$

$$0.5 = 0.5$$

∴ $\frac{16}{20}$, $\frac{8}{10}$ and $\frac{4}{5}$ are **equivalent fractions**.

LEARNING OUTCOME:

Students are able to understand the meaning of equivalent fractions and how to find the equivalent fractions.

THANKING YOU
ODM EDUCATIONAL GROUP

SESSION : 12
CLASS : IV
SUBJECT : MATHEMATICS
CHAPTER NUMBER : 11
CHAPTER NAME : FRACTIONS
**SUBTOPIC : EQUIVALENT FRACTIONS AND
FINDING EQUIVALENT FRACTIONS,
EX-11 B Q.NO. 4, 5 AND 6**

CHANGING YOUR TOMORROW

EQUIVALENT FRACTIONS

Exercise – 11(B)

4. Write the next two equivalent fractions to each of the following fractions:

(a) $\frac{2}{3}$, $\frac{4}{6}$, $\frac{6}{9}$

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

$$\frac{2 \times 3}{3 \times 3} = \frac{6}{9}$$

(b) $\frac{5}{7}$, $\frac{10}{14}$, $\frac{15}{21}$

$$\frac{5 \times 2}{7 \times 2} = \frac{10}{14}$$

$$\frac{5 \times 3}{7 \times 3} = \frac{15}{21}$$

(c) $\frac{6}{11}$, $\frac{24}{44}$, $\frac{36}{66}$

$$\frac{6 \times 4}{11 \times 4} = \frac{24}{44}$$

$$\frac{6 \times 6}{11 \times 6} = \frac{36}{66}$$

EQUIVALENT FRACTIONS

Exercise – 11(B)

4. Write the next two equivalent fractions to each of the following fractions:

(d) $\frac{5}{9}$,

$\frac{10}{18}$,

$\frac{25}{45}$,

$\frac{5 \times 2}{9 \times 2} = \frac{10}{18}$

$\frac{5 \times 5}{9 \times 5} = \frac{25}{45}$

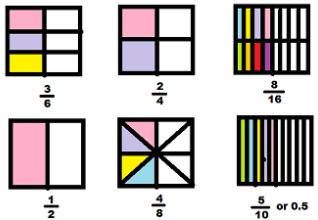
(e) $\frac{3}{10}$,

$\frac{9}{30}$,

$\frac{21}{70}$,

$\frac{3 \times 3}{10 \times 3} = \frac{9}{30}$

$\frac{3 \times 7}{10 \times 7} = \frac{21}{70}$



Equivalent numbers represent the same amount.

EQUIVALENT FRACTIONS

Exercise – 11(B)

5. Fill in the blanks:

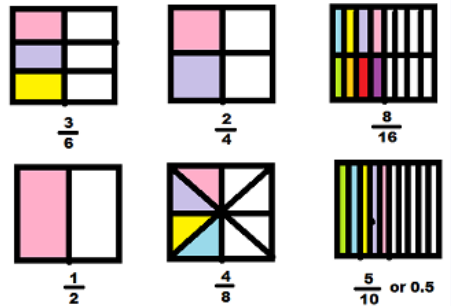
$$(a) \frac{5}{8} = \frac{25}{\boxed{40}}$$

$$(b) \frac{3}{4} = \frac{15}{\boxed{20}}$$

$$(c) \frac{\boxed{7}}{9} = \frac{63}{81}$$

$$(d) \frac{4}{\boxed{5}} = \frac{20}{25}$$

$$(e) \frac{15}{25} = \frac{3}{\boxed{5}}$$



Equivalent numbers represent the same amount.

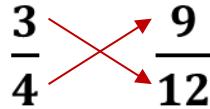
EQUIVALENT FRACTIONS

Exercise – 11(B)

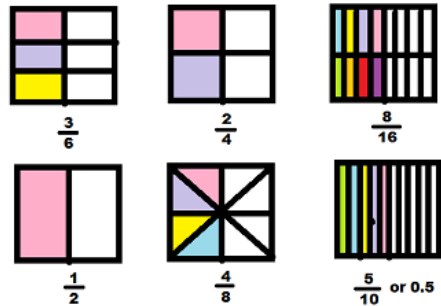
6. Check whether the given fractions are equivalent or not:

(a) $\frac{3}{4}$ and $\frac{9}{12}$

$$3 \times 12 = 36$$


$$\frac{3}{4} \quad \frac{9}{12}$$

$$4 \times 9 = 36$$



Equivalent numbers represent the same amount.

So, $\frac{3}{4}$ and $\frac{9}{12}$ is equivalent fractions.

EQUIVALENT FRACTIONS

Exercise – 11(B)

6. Check whether the given fractions are equivalent or not:

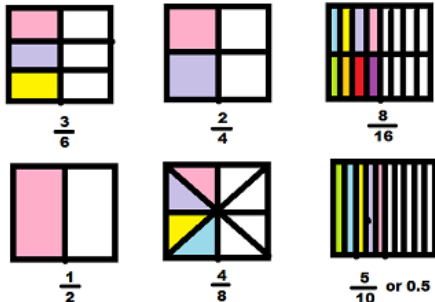
(b) $\frac{9}{27}$ and $\frac{3}{9}$

$$9 \times 9 = 81$$


$$\frac{9}{27} \text{ and } \frac{3}{9}$$

$$27 \times 3 = 81$$

So, $\frac{9}{27}$ and $\frac{3}{9}$ is equivalent fractions.



Equivalent numbers represent the same amount.

EQUIVALENT FRACTIONS

Exercise – 11(B)

6. Check whether the given fractions are equivalent or not:

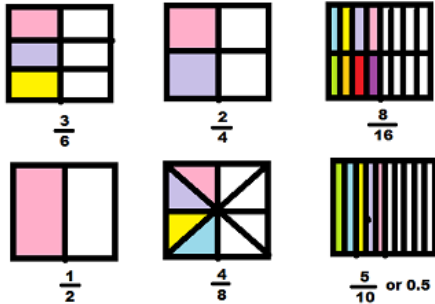
(c) $\frac{2}{5}$ and $\frac{7}{6}$

$$2 \times 6 = 12$$

$$\frac{2}{5} \text{ and } \frac{7}{6}$$

$$5 \times 7 = 35$$

So, $\frac{2}{5}$ and $\frac{7}{6}$ is not equivalent fractions.



Equivalent numbers represent the same amount.

EQUIVALENT FRACTIONS

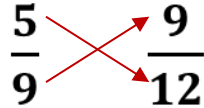
Exercise – 11(B)

6. Check whether the given fractions are equivalent or not:

(d)

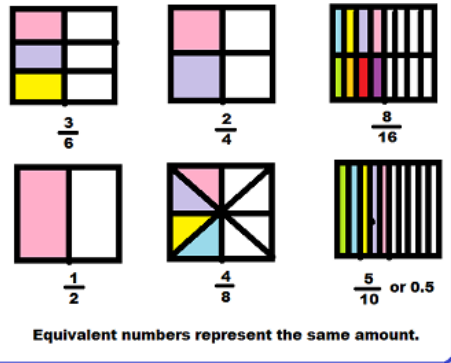
$$\frac{5}{9} \text{ and } \frac{9}{12}$$

$$5 \times 12 = 60$$


$$\frac{5}{9} \text{ and } \frac{9}{12}$$

$$9 \times 9 = 81$$

So, $\frac{5}{9}$ and $\frac{9}{12}$ is not equivalent fractions.



EQUIVALENT FRACTIONS

Exercise – 11(B)

6. Check whether the given fractions are equivalent or not:

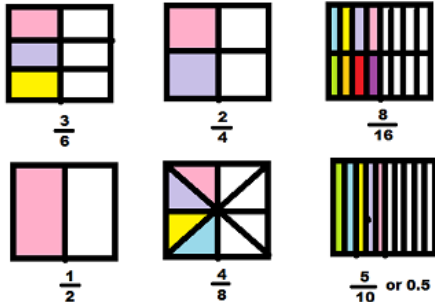
(e) $\frac{9}{15}$ and $\frac{3}{5}$

$$9 \times 5 = 45$$


$$\frac{9}{15} \text{ and } \frac{3}{5}$$

$$15 \times 3 = 45$$

So, $\frac{9}{15}$ and $\frac{3}{5}$ is equivalent fractions.



Equivalent numbers represent the same amount.

EQUIVALENT FRACTIONS

Exercise – 11(B)

6. Check whether the given fractions are equivalent or not:

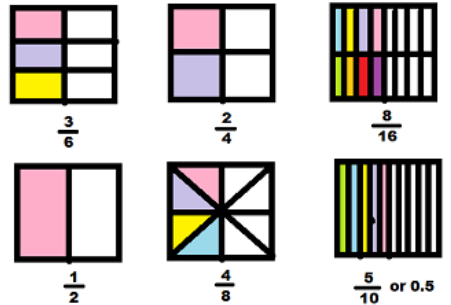
(f) $\frac{2}{4}$ and $\frac{9}{12}$

$$2 \times 12 = 24$$

$$\frac{2}{4} \text{ and } \frac{9}{12}$$

$$4 \times 9 = 36$$

So, $\frac{2}{4}$ and $\frac{9}{12}$ is not equivalent fractions.



Equivalent numbers represent the same amount.

EQUIVALENT FRACTIONS

Exercise – 11(B)

6. Check whether the given fractions are equivalent or not:

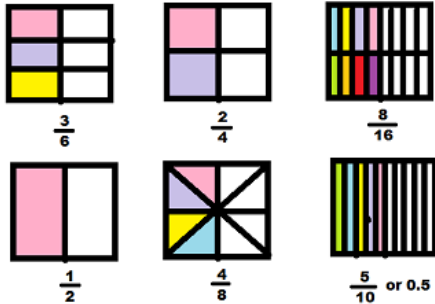
(g) $\frac{11}{12}$ and $\frac{7}{9}$

$$11 \times 9 = 99$$

$$\frac{11}{12} \neq \frac{7}{9}$$

$$12 \times 7 = 84$$

So, $\frac{11}{12}$ and $\frac{7}{9}$ is not equivalent fractions.



Equivalent numbers represent the same amount.

EQUIVALENT FRACTIONS

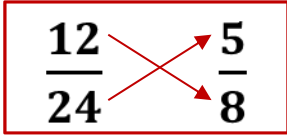
Exercise – 11(B)

6. Check whether the given fractions are equivalent or not:

(h)

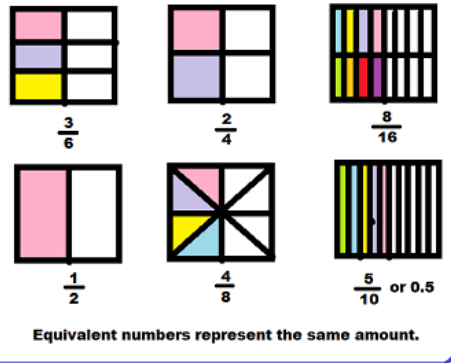
$$\frac{12}{24} \text{ and } \frac{5}{8}$$

$$12 \times 8 = 96$$


$$\frac{12}{24} \text{ and } \frac{5}{8}$$

$$24 \times 5 = 120$$

So, $\frac{12}{24}$ and $\frac{5}{8}$ is not equivalent fractions.



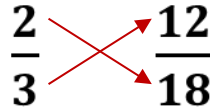
EQUIVALENT FRACTIONS

Exercise – 11(B)

6. Check whether the given fractions are equivalent or not:

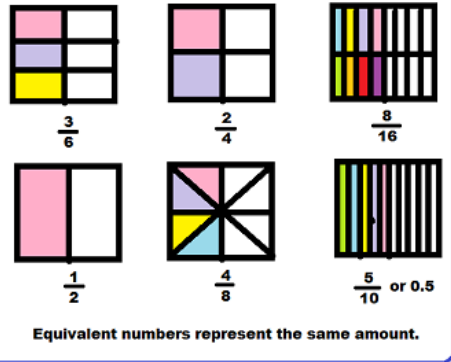
(i) $\frac{2}{3}$ and $\frac{12}{18}$

$$2 \times 18 = 36$$


$$\frac{2}{3} \text{ and } \frac{12}{18}$$

$$3 \times 12 = 36$$

So, $\frac{2}{3}$ and $\frac{12}{18}$ is equivalent fractions.



LEARNING OUTCOME:

Students are able to understand the meaning of equivalent fractions and how to find the equivalent fractions using multiplication and division.

THANKING YOU
ODM EDUCATIONAL GROUP

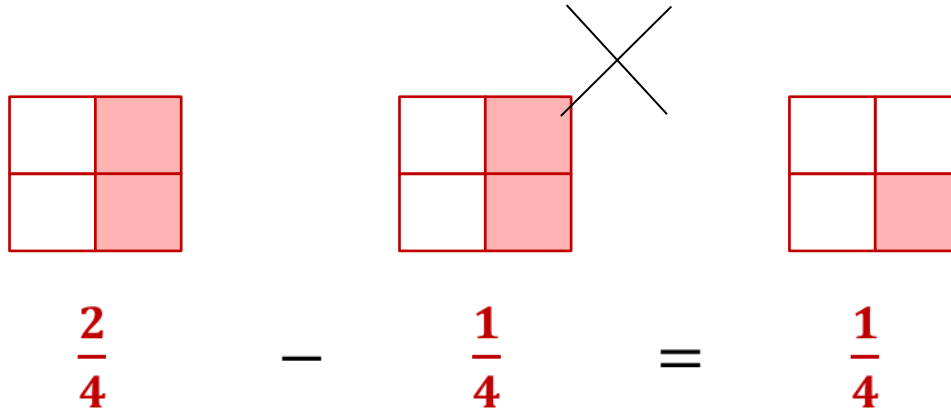
SESSION : 14
CLASS : IV
SUBJECT : MATHEMATICS
CHAPTER NUMBER : 11
CHAPTER NAME : FRACTIONS
SUBTOPIC : SUBTRACTIONS OF LIKE FRACTIONS, EX-11 D

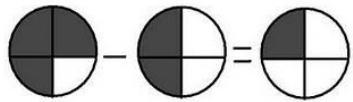
CHANGING YOUR TOMORROW

FRACTION

SUBTRACTION OF FRACTION

Let us subtract $\frac{1}{4}$ from $\frac{2}{4}$.





The diagram shows three circle models, each divided into four equal quadrants. The first circle has three quadrants shaded black, representing $\frac{3}{4}$. The second circle has two quadrants shaded black, representing $\frac{2}{4}$. The third circle has one quadrant shaded black, representing the result $\frac{1}{4}$.

$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$

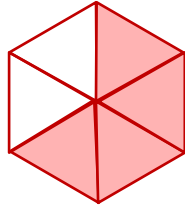
Two like **fractions** can be **subtracted** by simply **subtracting** the smaller **numerator** from the greater **numerator**, while keeping the **denominator** same.

FRACTION

SUBTRACTION OF FRACTION

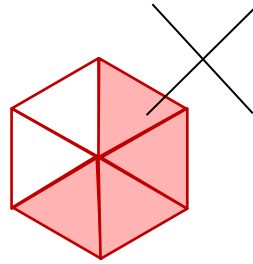
EXAMPLE

Subtract $\frac{2}{6}$ from $\frac{4}{6}$.



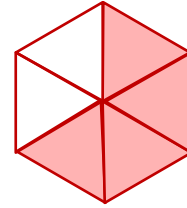
$$\frac{4}{6}$$

—

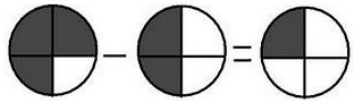


$$\frac{2}{6}$$

=



$$\frac{4-2}{6} = \frac{2}{6}$$



$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$

SUBTRACTION OF LIKE FRACTIONS

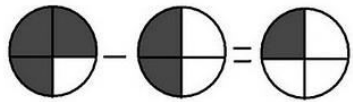
Exercise – 11(D)

1. Fill in the blanks:

$$(a) \frac{2}{3} - \frac{1}{3} = \frac{1}{3}$$

$$(b) \frac{7}{11} - \frac{5}{11} = \frac{2}{11}$$

$$(c) \frac{17}{25} - \frac{8}{25} = \frac{9}{25}$$



$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$

SUBTRACTION OF LIKE FRACTIONS

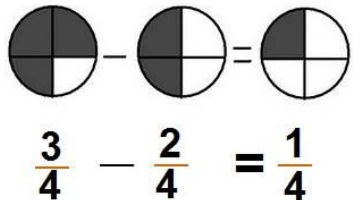
Exercise – 11(D)

1. Fill in the blanks:

$$(d) \frac{8}{14} - \frac{3}{14} = \frac{5}{14}$$

$$(e) \frac{34}{43} - \frac{11}{43} = \frac{23}{43}$$

$$(f) \frac{17}{18} - \frac{4}{18} = \frac{13}{18}$$



SUBTRACTION OF LIKE FRACTIONS

Exercise – 11(D)

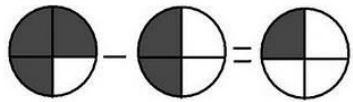
1. Fill in the blanks:

$$(g) \frac{\boxed{10}}{15} - \frac{7}{15} = \frac{3}{15}$$

$$(h) \frac{10}{13} - \frac{9}{13} = \frac{\boxed{1}}{\boxed{13}}$$

$$(i) \frac{23}{42} - \frac{17}{42} = \frac{\boxed{6}}{\boxed{42}}$$

$$(j) \frac{87}{92} - \frac{57}{92} = \frac{\boxed{30}}{\boxed{92}}$$


$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$

SUBTRACTION OF LIKE FRACTIONS

Exercise – 11(D)

2. Subtract the following:

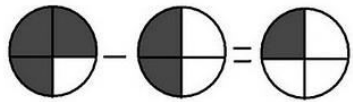
$$(a) \frac{4}{7} - \frac{3}{7} = \frac{4-3}{7} = \frac{1}{7}$$



$$(b) \frac{7}{11} - \frac{2}{11} = \frac{7-2}{11} = \frac{5}{11}$$



$$(c) \frac{11}{17} - \frac{5}{17} = \frac{11-5}{17} = \frac{6}{17}$$


$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$

SUBTRACTION OF LIKE FRACTIONS

Exercise – 11(D)

2. Subtract the following:

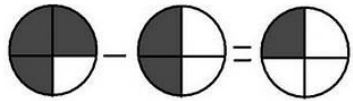
$$(d) \frac{20}{31} - \frac{15}{31} = \frac{20-15}{31} = \frac{5}{31}$$



$$(e) \frac{4}{15} - \frac{2}{15} = \frac{4-2}{15} = \frac{2}{15}$$



$$(f) \frac{15}{25} - \frac{10}{25} = \frac{15-10}{25} = \frac{5}{25}$$


$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$

SUBTRACTION OF LIKE FRACTIONS

Exercise – 11(D)

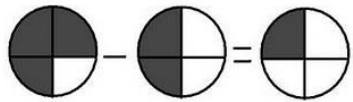
2. Subtract the following:

$$(g) \frac{17}{23} - \frac{11}{23} = \frac{17-11}{23} = \frac{6}{23}$$

$$(h) \frac{15}{19} - \frac{12}{19} = \frac{15-12}{19} = \frac{3}{19}$$

$$(i) \frac{12}{26} - \frac{11}{26} = \frac{12-11}{26} = \frac{1}{26}$$

$$(j) \frac{25}{43} - \frac{23}{43} = \frac{25-23}{43} = \frac{2}{43}$$



$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$

HOME ASSIGNMENT:

- Complete Exercise – 11(D) in your note book.**

LEARNING OUTCOME:

Students are able to understand how to subtract the like fractions.

THANKING YOU
ODM EDUCATIONAL GROUP