

Fractions



Leela and Alok are taking food. Mother is preparing hot chapatti. Mother prepared one chapatti. Giving it to Alok, she said "Both of you take half of it."

Alok divided chapatti in this way Mother gave another chapatti and said again, "Both of you take half of it."

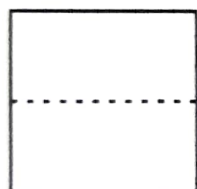
This time Leela divided the chapatti in this way-



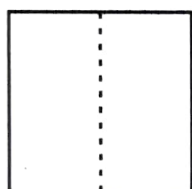
According to you who divided the chapatti into equal halves, Alok or Leela?.....

Take a paper and divide it into two equal halves.

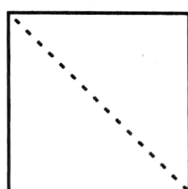
See, the different ways in which the paper has been divided-



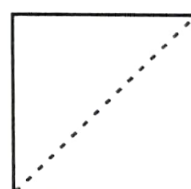
(a)



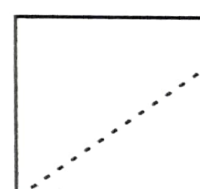
(b)



(c)



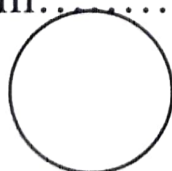
(d)



(e)

Are all the ways of dividing the paper into two equal halves correct? If not, which is the correct way?why?.....

Let us divide the given figures into two equal halves and colour one part of each of them.....



We learnt,

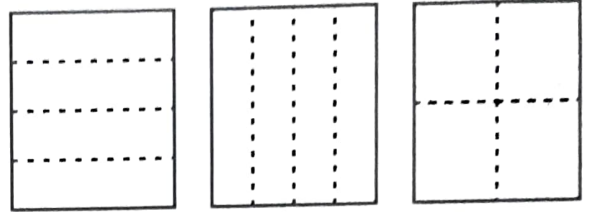
For dividing into two halves it is necessary that both the parts are equal.

Let us learn - For dividing any object into two halves, we divide it into two equal parts. One part (half) of it is written as $-\frac{1}{2}$
It is read as- one upon two

Parts taken
Total number of equal parts of an object

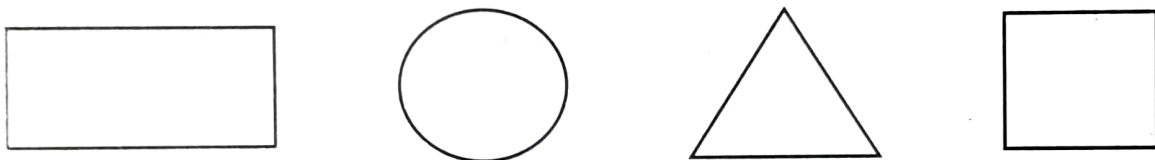
Take a paper and divide it into 4 equal parts-

See the different ways in which the paper has been divided.



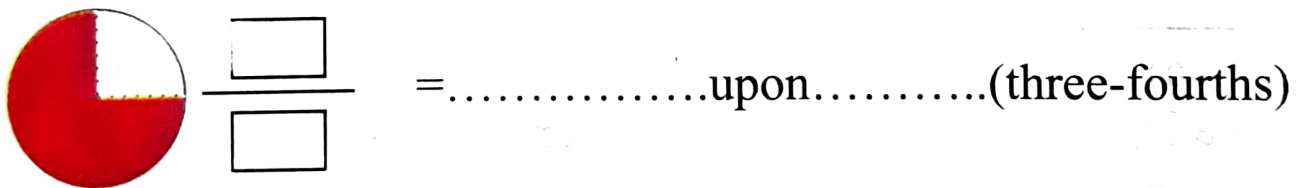
Is there any other way of dividing the paper into four equal parts? Think-
Let us divide the given figures into four equal parts and colour one part of each of them-

Let us We divide an object into 4 equal parts. One part of it is written $\frac{1}{4}$ and read as one upon four.

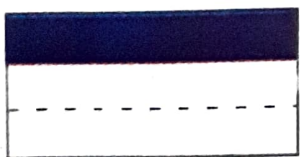


One upon four is also called one- fourth.

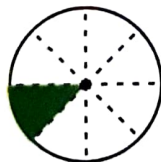
If we take 3 parts out of 4 equal parts then how do we read and write it?



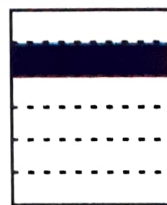
Observe the following figures and fill in the boxes-



coloured part $\frac{1}{3}$
(one upon three)



coloured part $\frac{1}{8}$
(one upon eight)

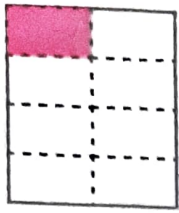


coloured part $\frac{1}{6}$
(one upon six)



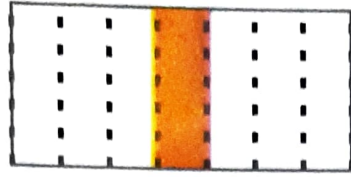
coloured part $\frac{1}{5}$
(one upon five)

Write how much part is coloured



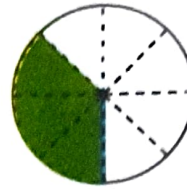
$$\frac{\square}{\square}$$

(..... upon)



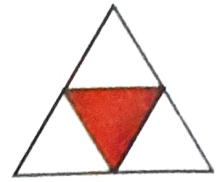
$$\frac{\square}{\square}$$

(..... upon)



$$\frac{\square}{\square}$$

(..... upon)



$$\frac{\square}{\square}$$

(..... upon)

Let us understand-

$\frac{1}{2}, \frac{1}{4}, \frac{3}{4}, \frac{1}{3}, \frac{1}{8}, \frac{1}{6}, \frac{1}{5}, \frac{1}{7}, \frac{3}{8}, \frac{2}{4}$ are fractions.

Can you tell, what is a fraction?

A Fraction is a number which represents any part of the whole object or group, when it is divided equally.

In symbols fractions are read and written as-

For example- $\frac{3}{7}$ (three upon seven)

The line drawn between the two numbers is called **dividing line**. The number above the dividing line is called the **numerator** and the number below the dividing line is called the **denominator**.

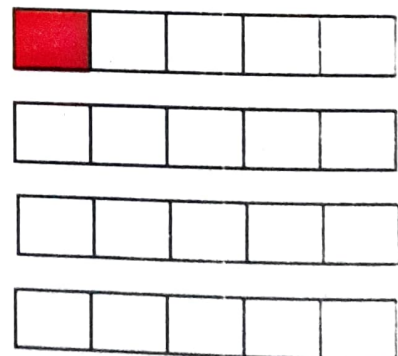
For example- In $\frac{1}{2}$, $\frac{1}{2}$

$\nwarrow$ Numerator
 $\leftarrow$ Dividing line
 $\nearrow$ Denominator

$$\text{Fraction} = \frac{\text{Numerator}}{\text{Denominator}}$$

Colour according to the given fractions-

$\frac{1}{5}$
 $\frac{2}{5}$
 $\frac{3}{5}$
 $\frac{4}{5}$



Which is the greatest and the smallest fraction among the fractions you have coloured?

Greatest fractions $\frac{\square}{\square}$ Smallest fractions $\frac{\square}{\square}$



Write the fractions given above in

Ascending order < < <

Descending order > > >

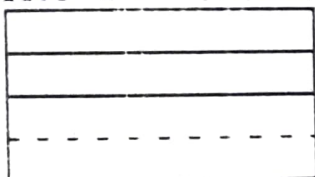
We learnt, in fractions with the same denominators the fraction with the greater numerator is the greater fraction and fraction with the smaller numerator is the smaller fraction.

We have learnt

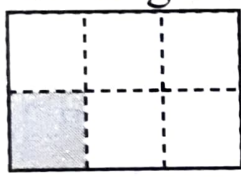
- A fraction is a number which represents a part of whole or group, when it is divided equally.
- In a fraction the number above the dividing line is the numerator and the number below the dividing line is the denominator.
- In fractions with the same denominator, the fraction with the greater numerator is the greater fraction and the fraction with smaller numerator is the smaller fraction.

Exercise

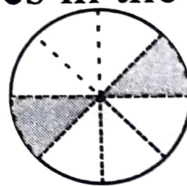
1. Write the coloured part of the given figures in the form of fractions-



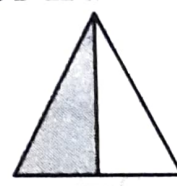
$\frac{\quad}{\quad}$



$\frac{\quad}{\quad}$



$\frac{\quad}{\quad}$



$\frac{\quad}{\quad}$

2. Represent $\frac{1}{2}$, $\frac{2}{3}$ and $\frac{3}{5}$ in the form of figures.

3. Write the numerator and the denominator-

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

$\frac{4}{7}$
.....

$\frac{2}{5}$
.....

4. Which is greater and smaller in the given pairs of fractions.

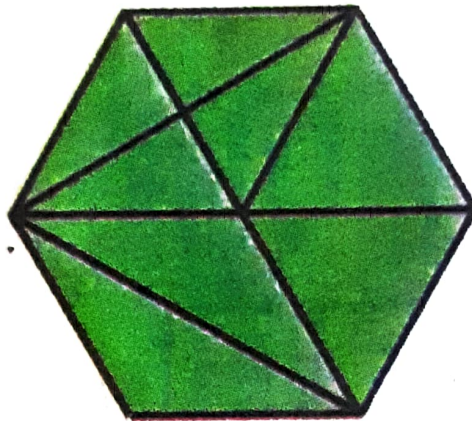
(a) In $\frac{6}{5}$ and $\frac{7}{5}$ (b) In $\frac{4}{7}$ and $\frac{6}{7}$ (c) In $\frac{11}{15}$ and $\frac{8}{15}$ (d) In $\frac{12}{17}$ and $\frac{8}{17}$

Make the students practise related exercises in the workbook. Give opportunities to the students to find and discuss fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ in their surroundings.

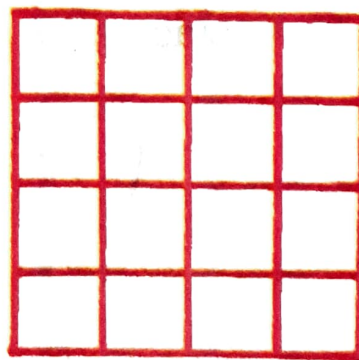
Find out and tell



1. Find how many triangles are there in the picture given below and write-



2. Find how many squares are there in the picture given below and write-



Draw different shapes like these and give opportunities to children to find out geometrical shapes in them.