

Basis of Fractions

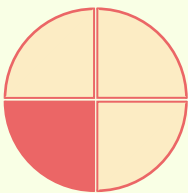
A fraction is a way of representing division of a “whole” into “parts”. It has the form of $\frac{1}{2}, \frac{2}{3}$. It consists of two numbers. The number on top is called the **numerator**. The number on the bottom is called the **denominator**.

There are three distinct meanings of fractions.

1. **Part-Whole:** $\frac{3}{4}$ indicates that a whole has been partitioned into four equal parts and three of those parts are being considered.
2. **Division:** $\frac{3}{4}$ may also be considered as a division $3 \div 4$. Suppose you have 3 pizzas to be shared with 4 friends equally. How much should each one get? You can use $3 \div 4$ or each one gets $\frac{3}{4}$ of a pizza.
3. **Ratio:** The fraction $\frac{3}{4}$ may also represent a ratio. For example, there are 3 girls for every 4 boys in your school.

Example 1

What fraction of the shape is red?



Explanation

We consider the circle as a “whole”. It was divided into 4 parts and one of them is colored red.

Therefore, the answer is $\frac{1}{4}$.

Example 2

What fraction of the set of kites is circled?



Explanation

We consider the 5 kites as a “whole” group. 3 of them are circled.

Therefore, the answer is $\frac{3}{5}$.

Example 3

$\frac{3}{8}$ means ___ ÷ ___

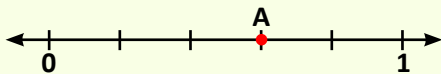
Explanation

The fraction may be considered as a **division**.

Therefore, $\frac{3}{8} = 3 \div 8$.

Example 4

What does ‘A’ represent on the number line?



Explanation

A fraction can also be represented on a **number line**. There are 5 parts in between 0 and 1 on the number line. Point A covers 3 parts starting from 0.

Therefore, ‘A’ represent on the number line is $\frac{3}{5}$.