

Ascending and descending orders are two well-known techniques for arranging the list of integers, percentages, and fractions from smaller to greatest and greatest to smaller. The arrangement of fractions from least to greatest or greatest to least is known as ordering fractions.

These terms are frequently used in mathematics and statistics to evaluate various kinds of problems.

What are ascending and descending orders?

[Ascending and descending orders](#) are widely used techniques in mathematics and statistics to deal with number theory, algebra, mean, median, mode, etc. When the integers, percentages, or fractions are arranged from least to greatest (smaller to larger), then this arrangement is known as ascending order.

When the integers, percentages, or fractions are arranged from greatest to least (larger to smaller), then this arrangement is known as descending order. For example, coming down from the first floor to the ground floor through stairs step by step is an example of descending order.

Natural numbers, whole numbers, prime numbers, etc., are some examples of ascending order. Alphabets from A-Z also an example of ascending order. In simple words, the increasing order is said to be ascending order, and decreasing order is said to be descending order.

How to arrange fractions?

The arrangement of fractions from smaller to larger or larger to smaller is said to be the ordering of fractions. The arrangement of the fractions can be done through different methods such as: making like fractions or converting fractions into decimals.

Making like fractions

Making like fractions is a well-known method of ordering fractions in which you have to make the denominator of all the fractions the same. For this you have to follow a few steps:

- Take the denominators of all the fractions.
- Find the least common multiple of the given denominators through a list of multiple methods or prime factorization method.
- Make all the denominators equivalent to the least common multiple by multiplying the numerator and denominator with a suitable integer.
- After making the same denominators, arrange the numerators from least to greatest or greatest to least.
- In the end, write their corresponding terms.

Converting fractions into decimals

Converting fractions into decimals is another method of ordering fractions. This method is rather easy than the above method. In this method, you have to find the quotient of all the fractions. Here are a few steps that could be followed in this method:

- First of all, take the fractions.
- Find the quotient into decimals of all the given fractions.
- Arrange all the decimals from least to greatest or greatest to least.
- In the end, write their corresponding terms.

Examples of arranging fractions

Here are a few solved examples of arranging fractions in ascending and descending orders by making like fractions and converting fractions into decimals methods.

Example 1: making like fractions method

Use the “making like fractions” method to arrange the given fractions in ascending and descending orders:

$\frac{2}{3}$, $\frac{1}{2}$, $\frac{3}{5}$, $\frac{5}{10}$, $\frac{2}{6}$, $\frac{12}{15}$, $\frac{16}{30}$

Solution

Step 1: Take the given list of fractions and write the denominators separately.

List of fractions = $2/3, 1/2, 3/5, 5/10, 2/6, 12/15, 16/30$

Denominators = 3, 2, 5, 10, 6, 15, 30

Step 2: Now use the denominators to find the least common multiple.

Prime factors of 3 = 3

Prime factors of 2 = 2

Prime factors of 5 = 5

Prime factors of 10 = 2×5

Prime factors of 6 = 2×3

Prime factors of 15 = 3×5

Prime factors of 30 = $2 \times 3 \times 5$

Common factors = 2, 3, 5

Non-common factors = nil

Least common multiple = product of common factors \times product of non-common factors

Least common multiple = $(2 \times 3 \times 5) \times (1)$

Least common multiple = $30 \times 1 = 30$

Step 3: Now make all the denominators equal to 30.

$2/3 = 2 \times 10 / 3 \times 10 = 20/30$

$1/2 = 1 \times 15 / 2 \times 15 = 15/30$

$3/5 = 3 \times 6 / 5 \times 6 = 18/30$

$5/10 = 5 \times 3 / 10 \times 3 = 15/30$

$2/6 = 2 \times 5 / 6 \times 5 = 10/30$

$12/15 = 12 \times 2 / 15 \times 2 = 24/30$

$16/30 = 16 \times 1 / 30 \times 1 = 16/30$

Step 4: Now arrange the above fractions from greatest to least and write their corresponding fraction (original fractions).

$24/30, 20/30, 18/30, 16/30, 15/30, 15/30, 10/30$

Corresponding fractions are:

$12/15, 2/3, 3/5, 16/30, 1/2, 5/10, 2/6$

Step 5: Now arrange the above fractions from least to greatest and write their corresponding fraction (original fractions).

$10/30, 15/30, 15/30, 16/30, 18/30, 20/30, 24/30,$

Corresponding fractions are:

$2/6, 5/10, 1/2, 16/30, 3/5, 2/3, 12/15$

An ordering fraction calculator can be used to solve the above problem to save time. This calculator will calculate the result in ascending and descending orders with steps in a couple of seconds.

Example 2: Converting fractions into decimals

Use the "Converting fractions into decimals" method to arrange the given fractions in ascending and descending orders:

$15/3, 36/6, 60/5, 28/4, 110/10, 30/2, 12/6, 18/2$

Solution

Step 1: First of all, take the given list of fractions.

List of fractions = $15/3, 36/6, 60/5, 28/4, 110/10, 30/2, 12/6, 18/2$

Step 2: Now find the decimal value by dividing each numerator by the denominator.

$15/3 = 5$

$36/6 = 18/3 = 6$

$60/5 = 12$

$28/4 = 14/2 = 7$

$110/10 = 55/5 = 11$

$30/2 = 15$

$12/6 = 6/3 = 2$

$18/2 = 9$

Step 3: Now arrange the above decimal values from least to greatest and write their corresponding fractions.

2, 5, 6, 7, 9, 11, 12, 15

Corresponding fractions are:

12/6, 15/3, 36/6, 28/4, 18/2, 110/10, 60/5, 30/2

Step 4: Now arrange the above decimal values from greatest to least and write their corresponding fractions.

15, 12, 11, 9, 7, 6, 5, 2

Corresponding fractions are:

30/2, 60/5, 110/10, 18/2, 28/4, 36/6, 15/3, 12/6

A least to greatest calculator by [Meracalculator](#) is a helpful way to arrange fractions in ascending or descending orders with steps.

Least to Greatest Greatest to Least

Enter values separated by (,): ⓘ

15/3, 36/6, 60/5, 28/4, 110/10, 30/2,
12/6, 18/2

Calculate Reset

Ascending Order Descending Order

Least to Greatest:

$\frac{12}{6} < \frac{15}{3} < \frac{36}{6} < \frac{28}{4} < \frac{18}{2} < \frac{110}{10} < \frac{60}{5} < \frac{30}{2}$

Show More Details

How to arrange percentages?

Percentages are the average or ratio that is used to represent the fractions of 100. Percentages are arranged from least to greatest to least or greatest easily. Take the percentages and arrange them from smaller to larger or larger to smaller.

There is another way to arrange the percentages that are converting the percentages into fractions by taking 100 to the denominator of each percentage value and then evaluating the quotient of each fraction.

- First of all, take a list of percentages.
- Divide all the percentages by 100 to remove the % sign.
- Find the decimal of each fraction by dividing them.
- Arrange all the decimals from least to greatest or greatest to least.
- In the end, write their corresponding terms.

For example

List of fractions = 20%, 10%, 80%, 50%

Method 1:

Ascending order = 10%, 20%, 50%, 80%

Descending order = 80%, 50%, 20%, 10%

Method 2:

List of fractions = 20/100, 10/100, 80/100, 50/100

List of fractions = 0.2, 0.10, 0.80, 0.50

Ascending order = 0.1, 0.20, 0.50, 0.80

Descending order = 0.80, 0.50, 0.20, 0.10

How to arrange integers?

The arrangement of integers is not a difficult task. You have to simply arrange the numbers from lower to highest or highest to lower. Keep one thing in mind negative numbers are lower than positive numbers. So, the negative number comes first in ascending order and in descending order, they will be written to the end.

List of integers = 1, 2, 5, -2, -3, 7, 11

Ascending order = -2, -3, 1, 2, 5, 7

Descending order = 7, 5, 2, 1, -3, -2

Summary

Ascending and descending orders are two well-known techniques for arranging integers, percentages, and fractions. Now you can take the assistance in ordering fractions, integers, and percentages from this post.

Steady Run