

# How can I utilize the mean function in R for data analysis?

Authored by  
**stats writer**

May 2, 2024

## RECOMMENDED CITATION

stats writer (2024). *How can I utilize the mean function in R for data analysis?*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=141909>

The mean function in R is a statistical tool used to calculate the average value of a set of numerical data. It is commonly used in data analysis to summarize and understand the central tendency of a dataset. To utilize the mean function, one must input a set of values and the function will calculate the average of those values. This can be useful in various scenarios, such as comparing the average income of different regions or tracking the average temperature over a period of time. Some examples of its usage include determining the average sales for a product, calculating the average test score of a group of students, or finding the average weight of a population. Overall, the mean function in R is a valuable tool for analyzing and interpreting numerical data.

## Use mean Function in R (With Examples)

**You can use the mean() function in R to calculate the mean of values in a vector:**

**mean(x)**

**The following examples show how to use this function in practice.**

**Example 1: Calculate Mean of Vector**

**The following code shows how to calculate the mean value of a vector in R:**

```
#define vector
```

```
x <- c(3, 6, 7, 7, 12, 14, 19, 22, 24)
```

```
#calculate mean of vector
```

```
mean(x)
```

**12.66667**

If your vector has missing values, be sure to specify `na.rm = TRUE` to ignore missing values when calculating the mean:

**#define vector with some missing values**

```
x <- c(3, 6, 7, 7, NA, 14, NA, 22, 24)
```

**#calculate mean of vector**

```
mean(x, na.rm = TRUE)
```

**11.85714**

You can also use the `trim` argument to trim a certain fraction (0 to 0.5) of observations from each end of a vector before calculating the mean:

**#define vector**

```
x <- c(3, 6, 7, 7, 12, 14, 19, 22, 24)
```

**#calculate mean of vector after trimming 20% of observations off each end**

```
mean(x, trim = 0.2)
```

**12.42857**

**Example 2: Calculate Mean of Column in Data Frame**

**The following code shows how to calculate the mean value of a certain column in a data frame:**

```
#define data frame
```

```
df <- data.frame(a=c(3, 6, 7, 7, 12, 14, 19, 22, 24),  
b=c(4, 4, 5, 12, 13, 14, 9, 1, 2),  
c=c(5, 6, 6, 3, 5, 5, 6, 19, 25))
```

```
#calculate mean of column 'a'  
mean(df$a)
```

**12.66667**

**Example 3: Calculate Mean of Several Columns in Data Frame**

**The following code shows how to use the apply() function to calculate the mean of several columns in a data frame:**

```
#define data frame
```

```
df <- data.frame(a=c(3, 6, 7, 7, 12, 14, 19, 22, 24),  
b=c(4, 4, 5, 12, 13, 14, 9, 1, 2),
```

```
c=c(5, 6, 6, 3, 5, 5, 6, 19, 25))
```

```
#calculate mean of columns 'a' and 'c'
```

```
apply(df, 2, mean)
```

```
a c
```

```
12.666667 8.888889
```

ARABPSYCHOLOGY.COM