

# What is R?

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## RECOMMENDED CITATION

stats writer (2025). *What is R?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=100291>

R is a programming language and environment used for statistical computing and graphics. It provides a wide variety of statistical and graphical techniques, and is highly extensible. R is supported by a strong community of users and developers and is widely used for data analysis, statistical modeling, and visualization. It is free and open source software, and runs on a variety of platforms, including Windows, Linux, and MacOS.

There are two ways to rename columns when using the function in R:

### Method 1: Rename Columns After Using cbind

**#cbind two vectors into a matrix**

```
new_matrix <- cbind(vec1, vec2)
```

**#rename column names of matrix**

```
colnames(new_matrix) <- c('new_vec1', 'new_vec2')
```

### Method 2: Rename Columns During cbind

**#cbind two vectors into matrix and rename columns**

```
new_matrix <- cbind(new_vec1 = vec1, new_vec2 = vec2)
```

The following examples show how to use each method in practice.

## Example 1: Rename Columns After Using cbind

The following code shows how to use **cbind** to bind together two vectors into a matrix and then rename the columns of the matrix afterwards:

**#create two vectors**

```
vec1 <- c(1, 3, 3, 4, 5)
```

```
vec2 <- c(7, 7, 8, 3, 2)
```

**#cbind the two vectors into a matrix**

```
new_matrix <- cbind(vec1, vec2)
```

**#view matrix**

```
new_matrix
```

```
vec1 vec2
```

```
1 7
```

```
3 7
```

```
3 8
```

```
4 3
```

```
5 2
```

```
#rename columns
```

```
colnames(new_matrix) <- c('new_vec1', 'new_vec2')
```

```
#view matrix
```

```
new_matrix
```

```
new_vec1 new_vec2
```

```
1 7
```

```
3 7
```

```
3 8
```

```
4 3
```

```
5 2
```

Using this method, we're able to **cbind** together the two vectors into a matrix and then use the **colnames()** function to rename the columns of the resulting matrix.

## Example 2: Rename Columns During cbind

The following code shows how to use **cbind** to bind together two vectors into a matrix and simultaneously rename the columns:

```
#create two vectors
```

```
vec1 <- c(1, 3, 3, 4, 5)
```

```
vec2 <- c(7, 7, 8, 3, 2)
```

```
#cbind two vectors into matrix and rename columns
```

```
new_matrix <- cbind(new_vec1 = vec1, new_vec2 = vec2)
```

```
#view matrix
```

```
new_matrix
```

```
new_vec1 new_vec2
```

```
1 7
```

```
3 7
```

```
3 8
```

```
4 3
```

```
5 2
```

Using this method, we're able to rename the columns of the resulting data frame during the **cbind** function.

The benefit of using this method is that we're able to use the **cbind** function and rename the columns using a single line of code.

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