

# How can two vectors be combined in R? Can you provide examples?

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## RECOMMENDED CITATION

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In R, two vectors can be combined using various methods such as concatenation, merging, and binding. Concatenation involves combining the elements of two vectors to create a single vector. This can be done using the `c()` function in R. For example, `c(1,2,3)` and `c(4,5,6)` can be concatenated to create a new vector `c(1,2,3,4,5,6)`.

Merging involves combining two vectors based on a common identifier or key. This can be done using the `merge()` function in R. For example, if we have two vectors (A: 1,2,3) and (B: 4,5,6) with a common identifier (ID: 1,2,3), we can merge them to create a new vector (A: 1,2,3, B: 4,5,6) using the `merge(A,B,by="ID")` function.

Binding involves combining two vectors by rows or columns. This can be done using the `rbind()` and `cbind()` functions in R. For example, if we have two vectors (A: 1,2,3) and (B: 4,5,6), we can bind them by rows to create a new vector (1,2,3,4,5,6) using the `rbind(A,B)` function. Similarly, binding by columns would create a new vector (1,4,2,5,3,6) using the `cbind(A,B)` function.

Overall, R provides multiple ways to combine two vectors, depending on the desired outcome and the structure of the vectors.

## Combine Two Vectors in R (With Examples)

You can use one of the following methods to combine two vectors in R:

### Method 1: Combine Two Vectors Into One Vector

```
new_vector <- c(vector1, vector2)
```

### Method 2: Combine Two Vectors Into a Matrix

```
new_matrix <- cbind(vector1, vector2)
```

### Method 3: Combine Two Vectors Into a Data Frame

```
new_df <- data.frame(vector1, vector2)
```

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

**Method 1: Combine Two Vectors Into One Vector**

**The following code shows how to combine two vectors into one new vector:**

```
#define vectors
```

```
vector1 <- c(1, 2, 3, 4, 5)
```

```
vector2 <- c(6, 7, 8, 9, 10)
```

```
#combine two vectors into one vector
```

```
new_vector <- c(vector1, vector2)
```

```
#view resulting vector
```

```
new_vector
```

```
1 2 3 4 5 6 7 8 9 10
```

**Method 2: Combine Two Vectors Into a Matrix**

**The following code shows how to combine two vectors into a matrix:**

```
#define vectors
```

```
vector1 <- c(1, 2, 3, 4, 5)
```

```
vector2 <- c(6, 7, 8, 9, 10)
```

```
#combine two vectors into matrix
```

```
new_matrix <- cbind(vector1, vector2)
```

```
#view resulting matrix
```

```
new_matrix
```

```
vector1 vector2
```

```
1 6
```

```
2 7
```

```
3 8
```

```
4 9
```

```
5 10
```

**Method 3: Combine Two Vectors Into a Data Frame**

**The following code shows how to combine two vectors into a data frame:**

```
#define vectors
```

```
vector1 <- c(1, 2, 3, 4, 5)
```

```
vector2 <- c(6, 7, 8, 9, 10)
```

```
#combine two vectors into data frame  
new_df <- data.frame(vector1, vector2)
```

```
#view resulting data frame  
new_df
```

```
vector1 vector2
```

```
1 1 6
```

```
2 2 7
```

```
3 3 8
```

```
4 4 9
```

```
5 5 10
```

**Notice that each original vector is now a unique column in the resulting data frame.**