

How can I use the match() function in R, and what are some examples of its usage?

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July 1, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I use the match() function in R, and what are some examples of its usage?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=165464>

The match() function in R is a useful tool for finding the position of a specific element in a vector or list. It takes two arguments - the element to be searched for and the vector or list in which the element is to be searched. It returns the position of the first occurrence of the element in the vector or list. If the element is not found, it returns a NA value.

Some examples of using the match() function are finding the position of a specific value in a dataset, identifying duplicates in a list, and merging data from different sources based on a common identifier. It can also be used in conjunction with other functions, such as subset() and filter(), to manipulate data and extract specific elements or observations. The match() function is an efficient and versatile tool for data analysis and manipulation in R.

Use match() Function in R (With Examples)

The match() function in R returns the position of the first match between two objects.

This function uses the following basic syntax:

```
match(object1, object2)
```

The following examples show how to use this function in different scenarios.

Example 1: Match One Value in Vector

The following code shows how to use the match() function to find the first occurrence of a specific value in a vector:

```
#define value to look for in vector
```

```
value <- 10
```

```
#define vector of values
```

```
vector1 <- c(8, 9, 1, 10, 13, 15)
```

```
#find first occurrence of 10
```

```
match(value, vector1)
```

```
4
```

This tells us that the value 10 first occurs in the 4th position of the vector.

Note that if there are multiple values that match, only the position of the first match will be returned.

For example, the following vector has two values equal to 10 but only the position of the first 10 is returned:

```
#define value to look for in vector
```

```
value <- 10
```

```
#define vector of values with multiple '10' values
```

```
vector1 <- c(8, 9, 1, 10, 10, 10)
```

```
#find first occurrence of 10
```

match(value, vector1)

4

The value 10 occurs in positions 4, 5, and 6, but only position 4 is returned.

Example 2: Match Values in Two Vectors

The following code shows how to use the match() function to find the first occurrence of values in one vector in another vector:

```
#define vectors of values
```

```
vector1 <- c(1, 2, 3, 4, 5, 6)
```

```
vector2 <- c(8, 6, 1, 10, 10, 15)
```

```
#find first occurrence of values in vector1 within  
vector2
```

```
match(vector1, vector2)
```

```
3 NA NA NA NA 2
```

Here's how to interpret the output:

The first occurrence of the value 1 in vector1 occurs in

position 3 of vector2. The value 2 in vector1 never occurs in vector2. The value 3 in vector1 never occurs in vector2. The value 4 in vector1 never occurs in vector2. The value 5 in vector1 never occurs in vector2. The first occurrence of the value 6 in vector1 occurs in position 2 of vector2.

For example, we could return a value of 0 instead of NA:

```
#define vectors of values
```

```
vector1 <- c(1, 2, 3, 4, 5, 6)
```

```
vector2 <- c(8, 6, 1, 10, 10, 15)
```

```
#find first occurrence of values in vector1 within  
vector2
```

```
match(vector1, vector2, nomatch=0)
```

```
3 0 0 0 0 2
```

Additional Resources