

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

Authored by
stats writer

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The intersect() function in R is a useful tool for finding the common elements between two or more sets. It takes in multiple vectors or lists as its arguments and returns the elements that are present in all of them. This function is particularly helpful in data analysis and manipulation, as it allows for the identification of shared data points across different variables or datasets.

An example of using the intersect() function would be in a survey analysis, where you have two separate datasets containing responses from different groups of participants. By using the intersect() function on the variables representing gender or age, you can identify the individuals who belong to both groups, providing valuable insights for further analysis.

Another application of the intersect() function could be in market research, where you have data from two different surveys on consumer preferences. By using intersect() on the variables representing product preferences, you can determine the common products that are favored by both sets of consumers, aiding in decision-making for marketing strategies.

In summary, the intersect() function in R is a powerful tool for identifying common elements across sets, making it useful for various data analysis tasks. Its applications range from survey analysis to market research and can provide valuable insights for decision-making.

Use the intersect() Function in R (With Examples)

You can use the intersect() function in base R to find the intersection of two objects.

The "intersection" simply represents the elements that the two objects have in common.

This function uses the following basic syntax:

intersect(object1, object2)

The following examples show how to use the intersect() function with vectors and data frames.

Example 1: Use intersect() with Vectors

The following code shows how to use the intersect() function to find the intersection between two vectors in R:

```
#define two vectors
```

```
x <- c(1, 4, 5, 5, 9, 12, 19)
```

```
y <- c(1, 2, 5, 5, 10, 14, 19)
```

```
#find intersection between two vectors
```

```
intersect(x, y)
```

```
1 5 19
```

From the output we can see that vectors x and y have three values in common: 1, 5, and 19.

Note that the intersect() function also works with character vectors:

```
#define two vectors
```

```
x <- c('A', 'B', 'C', 'D', 'E')
```

```
y <- c('C', 'D', 'E', 'F')
```

```
#find intersection between two vectors
```

```
intersect(x, y)
```

```
"C" "D" "E"
```

From the output we can see that vectors x and y have three strings in common: C, D, and E.

Note that the two vectors do not have to be the same length for the intersect() function to work.

Example 2: Use intersect() with Data Frames

In order to find the rows that two data frames have in common, we must use the intersect() function from the dplyr package.

The following code shows how to use this function to find the rows that two data frames have in common:

```
library(dplyr)
```

```
#define two data frames
```

```
df1 <- data.frame(team=c('A', 'A', 'B', 'B'),  
points=c(12, 20, 25, 19))
```

```
df1
```

team points**1 A 12****2 A 20****3 B 25****4 B 19**

```
df2 <- data.frame(team=c('A', 'A', 'B', 'C'),  
points=c(12, 22, 25, 32))
```

df2**team points****1 A 12****2 A 22****3 B 25****4 C 32****#find intersection between two data frames**

```
dplyr::intersect(df1, df2)
```

team points**1 A 12****2 B 25****Note that this intersect() function will only return the**

rows that have the same values in every column between the two data frames.

Also note that we could use the length() function with the intersect() function to simply find the number of rows the two data frames have in common:

```
#find number of rows in common between the two data frames
```

```
length(dplyr::intersect(df1, df2))
```

2

From the output we can see that the two data frames have 2 rows in common.

Additional Resources