

How to Count Non-NA Values in R (3 Examples)

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In R, there are three main ways to count the number of non-NA values in a data set: using the `count()` function, using the `nrow()` function, or using the `sum(!is.na())` function. The `count()` function returns the number of observations in a given vector or data frame, the `nrow()` function returns the number of rows in a given data frame, and the `sum(!is.na())` function returns the sum of non-NA values in a given vector or data frame.

You can use the following methods to count non-NA values in R:

Method 1: Count Non-NA Values in Entire Data Frame

```
sum(!is.na(df))
```

Method 2: Count Non-NA Values in Each Column of Data Frame

```
colSums(!is.na(df))
```

Method 3: Count Non-NA Values by Group in Data Frame

```
library(dplyr)
```

```
df %>%  
  group_by(var1) %>%  
  summarise(total_non_na = sum(!is.na(var2)))
```

The following example shows how to use each of these methods in practice with the following data frame:

```
#create data frame  
df <- data.frame(team=c('A', 'A', 'A', 'A', 'B', 'B', 'B', 'B'),  
  points=c(12, NA, 30, 32, 20, 22, 17, NA),  
  rebounds=c(10, 8, 9, 13, NA, 20, 8, 7))
```

```
#view data frame  
df
```

```
team points rebounds  
1 A 12 10  
2 A NA 8  
3 A 30 9  
4 A 32 13
```

```
5 B 20 NA
6 B 22 20
7 B 17 8
8 B NA 7
```

Method 1: Count Non-NA Values in Entire Data Frame

The following code shows how to count the total non-NA values in the entire data frame:

```
#count non-NA values in entire data frame
sum(!is.na(df))

21
```

From the output we can see that there are **21** non-NA values in the entire data frame.

Method 2: Count Non-NA Values in Each Column of Data Frame

The following code shows how to count the total non-NA values in each column of the data frame:

```
#count non-NA values in each column
colSums(!is.na(df))

team points rebounds
8 6 7
```

From the output we can see:

There are **8** non-NA values in the team column.

There are **6** non-NA values in the points column.

There are **7** non-NA values in the rebounds column.

Method 3: Count Non-NA Values by Group

The following code shows how to count the total non-NA values in the **points** column, grouped by the **team** column:

```
library(dplyr)
df %>%
  group_by(team) %>%
```

```
summarise(total_non_na = sum(!is.na(points)))
```

```
# A tibble: 2 x 2
```

```
team total_non_na
```

```
1 A 3
```

```
2 B 3
```

From the output we can see:

There are **3** non-NA values in the points column for team A.

There are **3** non-NA values in the points column for team B.

The following tutorials explain how to perform other common operations with missing values in R: