

# How can I calculate the number of business days in R? Can you provide examples?

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June 26, 2024

## RECOMMENDED CITATION

stats writer (2024). *How can I calculate the number of business days in R? Can you provide examples?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=153151>

The process of determining the number of business days in R involves using a combination of functions and variables to accurately calculate the desired result. This can be achieved by utilizing the built-in functions in R, such as the "weekdays" and "as.Date" functions, along with variables that represent a specific date range. By utilizing these tools, one can easily determine the number of business days in a given time period. For example, to calculate the number of business days between two dates, one can use the following code:

```
start_date
```

## Calculate Business Days in R (With Examples)

You can use functions from the bizdays package in R to quickly add, subtract, and count the number of business days between two dates in R.

The following examples show how to use these functions in practice.

### Example 1: Count Number of Business Days Between Two Dates in R

To count the number of business days between two dates in R, you must first use the create.calendar() function from the bizdays package to create a calendar that contains a list of business days:

```
library(bizdays)
```

```
#create business calendar
```

```
business_calendar <- create.calendar('my_calendar',
```

```
weekdays = c('saturday','sunday'))
```

**Note that the weekdays argument specifies which days of the week are *not* business days.**

**We can then use the bizdays() function to count the number of business days between two specific dates:**

```
library(bizdays)
```

```
#calculate number of business days between two dates  
bizdays(from = '2022-01-01', to = '2022-12-31', cal =  
business_calendar)
```

```
259
```

**From the output we can see that there are 259 business days between 2022-01-01 and 2022-12-31.**

**Example 2: Add & Subtract Business Days from Date in R**

**Suppose we have the following data frame in R that contains information about the total sales made at some store on various dates:**

```
#make this example reproducible
```

```
set.seed(1)
```

```
#create data frame
```

```
df <- data.frame(date = as.Date('2022-01-01') + 0:249,  
sales = runif(n=250, min=1, max=30))
```

```
#view head of data frame
```

```
head(df)
```

```
date sales
```

```
1 2022-01-01 8.699751
```

```
2 2022-01-02 11.791593
```

```
3 2022-01-03 17.612748
```

```
4 2022-01-04 27.338026
```

```
5 2022-01-05 6.848776
```

```
6 2022-01-06 27.053301
```

**We can use the `offset()` function from the `bizdays` package to add 10 business days to each date:**

```
library(bizdays)
```

```
#create business calendar
```

```
business_calendar <- create.calendar('my_calendar',  
weekdays = c('saturday','sunday'))
```

**#add 10 business days to each date**

```
df$date <- bizdays::offset(df$date, 10, cal =  
business_calendar)
```

**#view updated head of data frame**

```
head(df)
```

**date sales**

```
1 2022-01-14 8.699751
```

```
2 2022-01-14 11.791593
```

```
3 2022-01-17 17.612748
```

```
4 2022-01-18 27.338026
```

```
5 2022-01-19 6.848776
```

```
6 2022-01-20 27.053301
```

**Notice that 10 business days have been added to each date.**

**To subtract business days, simply use a negative number in the offset() function.**

**For example, the following code shows how to subtract 10 business days from each date:**

```
library(bizdays)
```

```
#create business calendar
```

```
business_calendar <- create.calendar('my_calendar',  
weekdays = c('saturday','sunday'))
```

```
#subtract 10 business days to each date
```

```
df$date <- bizdays::offset(df$date, -10, cal =  
business_calendar)
```

```
#view updated head of data frame
```

```
head(df)
```

```
date sales
```

```
1 2021-12-20 8.699751
```

```
2 2021-12-20 11.791593
```

```
3 2021-12-20 17.612748
```

```
4 2021-12-21 27.338026
```

```
5 2021-12-22 6.848776
```

```
6 2021-12-23 27.053301
```

**Notice that 10 business days have been subtracted from each date.**

**Note: You can find the complete documentation for the bizdays package .**