

Fix in R: non-numeric argument to binary operator

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RECOMMENDED CITATION

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One error you may encounter in R is:

Error in df\$var1- df\$var2: non-numeric argument to binary operator

This error occurs when you attempt to perform some on two vectors and one of the vectors is non-numeric.

Examples of binary operations include:

Subtraction (-)

Addition (+)

Multiplication (*)

Division (/)

This error occurs most often when one of the vectors you provide is a character vector.

This tutorial shares exactly how to fix this error.

How to Reproduce the Error

Suppose we have the following data frame in R:

```
#create data frame
```

```
df <- data.frame(period = c(1, 2, 3, 4, 5, 6, 7, 8),
```

```
sales = c(14, 13, 10, 11, 19, 9, 8, 7),
```

```
returns = c('1', '0', '2', '1', '1', '2', '2', '3'))
```

```
#view data frame
```

```
df
```

```
period sales returns
```

```
1 1 14 1
```

```
2 2 13 0
```

```
3 3 10 2
```

```
4 4 11 1
```

```
5 5 19 1
```

```
6 6 9 2
```

```
7 7 8 2
```

```
8 8 7 3
```

Now suppose we attempt to create a new column called 'net' by subtracting the 'returns' column

from the 'sales' column:

```
#attempt to create new column called 'net'
```

```
df$net <- df$sales - df$returns
```

```
Error in df$sales * df$returns : non-numeric argument to binary operator
```

An error occurs because the 'returns' column is of the class 'character' and it's not possible to subtract a character column from a numeric column.

```
#display class of 'sales' column
```

```
class(df$sales)
```

```
"numeric"
```

```
#display class of 'returns' column
```

```
class(df$returns)
```

```
"character"
```

How to Fix the Error

The way to fix this error is to use **as.numeric()** to convert the 'returns' column to numeric before performing the subtraction:

```
#create new column called 'net'
```

```
df$net <- df$sales - as.numeric(df$returns)
```

```
#view updated data frame
```

```
df
```

```
period sales returns net
```

```
1 1 14 1 13
```

```
2 2 13 0 13
```

```
3 3 10 2 8
```

```
4 4 11 1 10
```

```
5 5 19 1 18
```

```
6 6 9 2 7
```

```
7 7 8 2 6
```

```
8 8 7 3 4
```

Additional Resources

The following tutorials explain how to troubleshoot other common errors in R:

[How to Fix in R: longer object length is not a multiple of shorter object length](#)