

“Why is the argument of length zero resulting in ‘Fix in R: argument is of length zero’?”

Authored by
stats writer

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RECOMMENDED CITATION

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The argument of length zero results in the error message "Fix in R: argument is of length zero" because it indicates that the function or operation being performed is attempting to use an input that has no value or length. This error is commonly seen in programming when there is a missing or empty argument, which prevents the function from being able to complete its task. In order to resolve this error, the user must ensure that all arguments have a valid value or length before running the function.

Fix in R: argument is of length zero

One error message you may encounter when using R is:

Error in if (x < 10) { : argument is of length zero

This error usually occurs when you attempt to make some logical comparison within an if statement in R, but the variable that you're using in the comparison is of length zero.

Two examples of variables with length zero are numeric() or character(0).

The following example shows how to resolve this error in practice.

How to Reproduce the Error

Suppose we create the following numeric variable in R

with a length of zero:

#create numeric variable with length of zero

x <- numeric()

Now suppose we attempt to use this variable in an if statement:

#if x is less than 10, print x to console

if(x < 10) {

x

}

Error in if (x < 10) { : argument is of length zero

We receive an error because the variable that we defined has a length of zero.

If we simply created a numeric variable with an actual value, we would never receive this error when using the if statement:

#create numeric variable

y <- 5

#if y is less than 10, print y to console

```
if(y < 10) {
```

```
y
```

```
}
```

5

How to Avoid the Error

To avoid the argument is of length zero error, we must include an isTRUE function, which uses the following logic:

```
is.logical(x) && length(x) == 1 && !is.na(x) && x
```

If we use this function in the if statement, we won't receive an error when comparing our variable to some value:

```
if(isTRUE(x) && x < 10) {
```

```
x
```

```
}
```

Instead of receiving an error, we simply receive no output because the isTRUE(x) function evaluates to

FALSE, which means the value of x is never printed.

Additional Resources

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

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