

# Is it possible to use the “Fix in R” function if the dimension of the data set $X$ has a length of 0 or is it necessary for the dimension to have a positive length?

Authored by  
**stats writer**

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## RECOMMENDED CITATION

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PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=142718>

The "Fix in R" function is a feature in the R programming language that allows users to modify data sets by correcting errors or making changes. However, it is important to note that this function can only be applied if the dimension of the data set has a positive length. This means that if the length of the data set X is 0, the "Fix in R" function cannot be used. In other words, the data set must have at least one element in order for the "Fix in R" function to be applicable. Without a positive length, the function will not be able to make any changes to the data set.

## Fix in R: dim(X) must have a positive length

One error you may encounter in R is:

**Error in apply(df\$var1, 2, mean) : dim(X) must have a positive length**

This error occurs when you attempt to use the `apply()` function to calculate some metric for a column of a data frame or matrix, yet provide a vector as an argument instead of a data frame or matrix.

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(points=c(99, 97, 104, 79, 84, 88, 91, 99),  
rebounds=c(34, 40, 41, 38, 29, 30, 22, 25),
```

```
blocks=c(12, 8, 8, 7, 8, 11, 6, 7))
```

```
#view data frame
```

```
df
```

```
points rebounds blocks
```

```
1 99 34 12
```

```
2 97 40 8
```

```
3 104 41 8
```

```
4 79 38 7
```

```
5 84 29 8
```

```
6 88 30 11
```

```
7 91 22 6
```

```
8 99 25 7
```

Now suppose we attempt to use the `apply()` function to calculate the mean value in the 'points' column:

```
#attempt to calculate mean of 'points' column
```

```
apply(df$points, 2, mean)
```

Error in `apply(df$points, 2, mean)` : `dim(X)` must have a positive length

An error occurs because the `apply()` function must be

applied to a data frame or matrix, yet in this example we attempt to apply it to a specific column in the data frame.

#### How to Fix the Error

The way to fix this error is to simply provide the name of the data frame to the `apply()` function as follows:

```
#calculate mean of every column in data frame  
apply(df, 2, mean)
```

```
points rebounds blocks  
92.625 32.375 8.375
```

From the output, we can see the mean value of each column in the data frame. For example, the mean value of the 'points' column is 92.625.

We can also use this function to only find the mean of specific values in the data frame:

```
#calculate mean of 'points' and 'blocks' column in data  
frame  
apply(df, 2, mean)
```

## points blocks

92.625 8.375

Lastly, if we'd like to find the mean of just one column then we can use the `mean()` function without using the `apply()` function at all:

```
#calculate mean of 'points' column  
mean(df$points) 92.625
```

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](#)