

# How can we use the transform function in R? Can you provide three examples?

Authored by  
**stats writer**

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## RECOMMENDED CITATION

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The transform function in R is a powerful tool that allows users to manipulate and restructure data in a variety of ways. It can be used to create new variables, apply mathematical operations, and even merge data frames. This function is particularly useful for data analysis and visualization, as it enables users to transform data into a format that is more suitable for their specific needs. For example, the transform function can be used to calculate the average of multiple variables, create a new variable based on existing ones, or merge two data frames based on a shared variable. Overall, the transform function offers flexibility and efficiency in data manipulation, making it an essential tool for any R user.

## Use the transform Function in R (3 Examples)

You can use the transform() function in base R to modify existing columns or add new columns to a data frame.

This function uses the following basic syntax:

```
transform(df, my_column = my_column_transformed)
```

The following examples show how to use this function in different scenarios with the following data frame in R:

```
#create data frame
```

```
df <- data.frame(pos=c('G', 'G', 'F', 'F', 'C'),  
points=c(23, 29, 33, 14, 10),  
assists=c(7, 7, 5, 9, 14))
```

```
#view data frame
```

**df**

**pos points assists**

**1 G 23 7**

**2 G 29 7**

**3 F 33 5**

**4 F 14 9**

**5 C 10 14**

**Example 1: Use transform() to Modify Existing Column**

**The following code shows how to use the transform() function to modify the existing points column:**

**#divide existing points column by 2**

**df\_new <- transform(df, points = points / 2)**

**#view new data frame**

**df\_new**

**pos points assists**

**1 G 11.5 7**

**2 G 14.5 7**

**3 F 16.5 5**

**4 F 7.0 9**

## 5 C 5.0 14

Notice that each value in the existing points column was divided by two and all other columns remained unchanged.

Example 2: Use transform() to Add One New Column

The following code shows how to use the transform() function to add a new column called points2:

```
#add new column called points2  
df_new <- transform(df, points2 = points * 2)
```

```
#view new data frame
```

```
df_new
```

```
pos points assists points2
```

```
1 G 23 7 46
```

```
2 G 29 7 58
```

```
3 F 33 5 66
```

```
4 F 14 9 28
```

```
5 C 10 14 20
```

Notice that the new column has been added to the data frame and all other existing columns remained the

**same.**

### Example 3: Use transform() to Add Multiple New Columns

The following code shows how to use the transform() function to add two new columns called points2 and assists2:

```
#add new columns called points2 and assists2  
df_new <- transform(df,  
points2 = points * 2, assists2 = assists * 2)
```

```
#view new data frame
```

```
df_new
```

```
pos points assists points2 assists2
```

```
1 G 23 7 46 14
```

```
2 G 29 7 58 14
```

```
3 F 33 5 66 10
```

```
4 F 14 9 28 18
```

```
5 C 10 14 20 28
```

Notice that two new columns have been added to the data frame and all other existing columns remained the same.

## Additional Resources

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