

How to Use If Statement with Multiple Conditions in R?

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An if statement with multiple conditions is a conditional statement that checks if more than one condition is true before executing a block of code. This type of statement is useful for making decisions based on multiple criteria. For example, an if statement with multiple conditions could be used to check if an age is between two numbers, or if a value is equal to one of several values.

You can use the following methods to create a new column in R using an IF statement with multiple conditions:

Method 1: If Statement with Multiple Conditions Using OR

```
df$new_var <- ifelse(df$var1>15 | df$var2>8, "value1", "value2")
```

Method 2: If Statement with Multiple Conditions Using AND

```
df$new_var <- ifelse(df$var1>15 & df$var2>8, "value1", "value2")
```

The following examples show how to use each method in practice with the following data frame:

```
#create data frame
df <- data.frame(team=c('A', 'A', 'A', 'A', 'B', 'B', 'B', 'B'),
  points=c(8, 8, 10, 13, 17, 19, 22, 25),
  assists=c(5, 10, 9, 6, 8, 10, 11, 12))
```

```
#view data frame
```

```
df
```

```
team points assists
```

```
1 A 8 5
```

```
2 A 8 10
```

```
3 A 10 9
```

```
4 A 13 6
```

```
5 B 17 8
```

```
6 B 19 10
```

```
7 B 22 11
```

```
8 B 25 12
```

Example 1: If Statement with Multiple Conditions Using OR

The following code shows how to create a new column called **rating** that assigns a value of "good" if the points column is greater than 15 **or** the assists column is greater than 8.

Otherwise it assigns a value of "bad":

```
#create new "rating" column using if statement with multiple conditions
```

```
df$rating <- ifelse(df$points>15 | df$assists>8, "good", "bad")
```

```
#view updated data frame
```

```
df
```

```
team points assists rating
```

```
1 A 8 5 bad
```

```
2 A 8 10 good
```

```
3 A 10 9 good
```

```
4 A 13 6 bad
```

```
5 B 17 8 good
```

```
6 B 19 10 good
```

```
7 B 22 11 good
```

```
8 B 25 12 good
```

Each player receives a value of "good" or "bad" in the newly created **rating** column.

Note that the | operator is used as an "or" statement in R.

Example 2: If Statement with Multiple Conditions Using AND

The following code shows how to create a new column called **rating** that assigns a value of "good" if the points column is greater than 15 **and** the assists column is greater than 8.

Otherwise it assigns a value of "bad":

```
#create new "rating" column using if statement with multiple conditions
```

```
df$rating <- ifelse(df$points>15 & df$assists>8, "good", "bad")
```

```
#view updated data frame
```

```
df
```

```
team points assists rating
```

```
1 A 8 5 bad
```

```
2 A 8 10 bad
```

```
3 A 10 9 bad
```

```
4 A 13 6 bad
```

```
5 B 17 8 bad
```

```
6 B 19 10 good
```

7 B 22 11 good

8 B 25 12 good

Note that the **&** operator is used as an "and" statement in R.

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