

# How can I use the dollar sign (\$) operator in R?

Authored by  
**stats writer**

June 29, 2024

## RECOMMENDED CITATION

stats writer (2024). *How can I use the dollar sign (\$) operator in R?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=159715>

The dollar sign (\$) operator in R is used to access elements within a data object, such as a vector, list, or data frame. It allows for the retrieval of specific variables or columns from a larger data set by specifying their names after the dollar sign. This operator is particularly useful when working with large datasets, as it provides a quick and efficient way to access and manipulate specific elements without having to write lengthy code. Additionally, the dollar sign can also be used to assign values to specific elements within a data object. Overall, the dollar sign operator is a powerful tool in R for data manipulation and analysis.

## Use Dollar Sign (\$) Operator in R

**You can use the dollar sign operator (\$) in R to create and access variables in lists and data frames.**

**The following examples shows four common way to use this operator in practice.**

**Example 1: Use Dollar Sign to Create Variable in List**

**Suppose we create the following list in R:**

```
#create list  
my_list <- list(A= c('X', 'Y', 'Z'),  
B=20,  
C=1:5)
```

```
#view list  
my_list
```

```
$A
```

```
"X" "Y" "Z"
```

```
$B
```

```
20
```

```
$C
```

```
1 2 3 4 5
```

We can use the dollar sign operator (\$) to create a new variable in this list:

```
#create new variable in list
```

```
my_list$D <- c('Hey', 'Hi', 'Hello')
```

```
#view updated list
```

```
my_list
```

```
$A
```

```
"X" "Y" "Z"
```

```
$B
```

```
20
```

```
$C
```

```
1 2 3 4 5
```

```
$D
```

```
"Hey" "Hi" "Hello"
```

Notice that the new variable D has been added to the list.

Example 2: Use Dollar Sign to Access Variable in List

We can also use the dollar sign operator (\$) to access a specific variable in a list.

For example, we can use the following code to access the variable C in the list:

```
#create list  
my_list <- list(A= c('X', 'Y', 'Z'),  
B=20,  
C=1:5)
```

```
#access variable C  
my_list$C  
1 2 3 4 5
```

Notice that only the values for variable C are returned.

### Example 3: Use Dollar Sign to Create Variable in Data Frame

Suppose we create the following data frame in R:

```
#create data frame
```

```
df <- data.frame(team=c('Mavs', 'Spurs', 'Rockets',  
'Nets'),  
points=c(140, 115, 109, 98))
```

```
#view data frame
```

```
df
```

```
team points
```

```
1 Mavs 140
```

```
2 Spurs 115
```

```
3 Rockets 109
```

```
4 Nets 98
```

We can use the dollar sign operator (\$) to create a new variable in the data frame called assists:

```
#create new variable called assists
```

```
df$assists <- c(20, 25, 29, 49)
```

```
#view updated data frame
```

**df**

**team points assists**

**1 Mavs 140 20**

**2 Spurs 115 25**

**3 Rockets 109 29**

**4 Nets 98 49**

**Notice that the new variable assists has been added to the data frame.**

**Example 4: Use Dollar Sign to Access Variable in Data Frame**

**We can also use the dollar sign operator (\$) to access a specific variable in a data frame.**

**For example, we can use the following code to access the points variable in the data frame:**

```
#create data frame
```

```
df <- data.frame(team=c('Mavs', 'Spurs', 'Rockets',  
'Nets'),
```

```
points=c(140, 115, 109, 98))
```

```
#access values for points
```

```
df$points
```

**140 115 109 98**

**Notice that only the values for the points variable are returned.**

**Additional Resources**

ARABPSYCHOLOGY.COM