

How can I turn off scientific notation in R and display numbers as decimal values?

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To turn off scientific notation in R and display numbers as decimal values, you can use the function `options(scipen = 999)` to set the value of the `scipen` option to a large number. This will prevent R from automatically formatting numbers in scientific notation. Alternatively, you can use the `format()` function to specify the number of decimal places you want to display. For example, `format(x, digits = 4)` will display the number `x` with four decimal places. This will allow you to present your data in a more user-friendly and readable format.

Turn Off Scientific Notation in R (With Examples)

You can use the following methods to turn off scientific notation in R;

Method 1: Turn off scientific notation as global setting

`options(scipen=999)`

Method 2: Turn off scientific notation for one variable

`format(x, scientific = F)`

The following examples show how to use each of these methods in practice.

Method 1: Turn Off Scientific Notation as Global Setting

Suppose we perform the following multiplication in R:

`#perform multiplication`

```
x <- 9999999 * 12345
```

```
#view resultsx
```

```
1.2345e+11
```

The output is shown in scientific notation since the number is so large.

The following code shows how to turn off scientific notation as a global setting. This means no variable in any output will be shown in scientific notation.

```
#turn off scientific notation for all variables  
options(scipen=999)
```

```
#perform multiplication
```

```
x <- 9999999 * 12345
```

```
#view results
```

```
x
```

```
123449987655
```

Notice that the entire number is displayed since we turned off scientific notation.

Note that the default value for scipen is 0 so you can reset this global setting by using options(scipen=0) in R:

```
#turn scientific notation back on  
options(scipen=0)
```

```
#perform multiplication again  
x <- 9999999 * 12345
```

```
#view results  
x
```

```
1.2345e+11
```

Method 2: Turn Off Scientific Notation for One Variable

The following code shows how to turn off scientific notation for just one variable:

```
#perform multiplication  
x <- 9999999 * 12345
```

```
#display results and turn of scientific notation  
format(x, scientific = F)
```

```
"123449987655"
```

```
#perform another multiplication
```

```
y <- 9999999 * 999999
```

```
#view results
```

```
y
```

```
9.999989e+12
```

Notice that only the first variable is shown without scientific notation since it's the only variable that we used the `format()` function on.

The following tutorials show how to perform other common operations in R: