Homework 3 Problem 5

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Data Types

R supports all of the main data types that we discussed in class during week 2. Strings in R are represented with quotation marks, before and after the object. Strings can contain letters, numbers, spaces, and punctuation. Change the my_name variable so that this code snippet prints your name.

```
my_first_string <- "abc123"
print(my_first_string)
```

```
## [1] "abc123"
```

```
my_name = "grace"
print(my_name)
```

```
## [1] "grace"
```

Arithmetic

We have already seen some examples of using R as a calculator to perform simple arithmetic but it can also do calculations with variables. Change the my_favorite_number variable to your favorite number.

```
my_favorite_number <- 13#your favorite number goes here!

a_new_number = my_favorite_number * 3 - 4
print(a_new_number)
```

```
## [1] 35
```

```
a_new_number = a_new_number ** 2
cat("Is ", a_new_number, " a better number?")
```

```
## Is  1225  a better number?
```

Conditional Expressions

R has built-in operators to evaluate comparisons between numbers and strings. Modify the following expressions so that they are true instead of false.

```
print(2 < 3)
```

```
## [1] TRUE
```

```
print(-6 < 5 + 7)
```

```
## [1] TRUE
```

```
print(3 == 3)
```

```
## [1] TRUE
```

```
print(1 == "1")
```

```
## [1] TRUE
```

Plotting

One nice feature of the Markdown format is that it allows us to include R calculations and figures directly into our reports and presentations. The following code creates a short vector and then makes a plot of the values inside the vector. Change the values so that the dots decrease from right to left.

```
my_first_vector <- c(1,2,5,12,15)
plot(my_first_vector)
```