**R Functions**

A function is a block of code which only runs when it is called.

You can pass data, known as parameters, into a function.

A function can return data as a result.

**Creating a Function**

To create a function, use the function() keyword:

my\_function <- function() { # create a function with the name my\_function

print("Hello World!")

}

**Call a Function**

To call a function, use the function name followed by parenthesis, like my\_function():

my\_function <- function() {

print("Hello World!")

}

my\_function() # call the function named my\_function

**Arguments**

Information can be passed into functions as arguments.

Arguments are specified after the function name, inside the parentheses. You can add as many arguments as you want, just separate them with a comma.

The following example has a function with one argument (fname). When the function is called, we pass along a first name, which is used inside the function to print the full name:

my\_function <- function(fname) {

paste(fname, "Griffin")

}

my\_function("Peter")

my\_function("Lois")

my\_function("Stewie")

**Number of Arguments**

By default, a function must be called with the correct number of arguments. Meaning that if your function expects 2 arguments, you have to call the function with 2 arguments, not more, and not less:

**Example**

This function expects 2 arguments, and gets 2 arguments:

my\_function <- function(fname, lname) {

paste(fname, lname)

}

my\_function("Peter", "Griffin")

Default Parameter Value

**The following example shows how to use a default parameter value.**

**If we call the function without an argument, it uses the default value:**

my\_function <- function(country = "Norway") {

paste("I am from", country)

}

my\_function("Sweden")

my\_function("India")

my\_function() # will get the default value, which is Norway

my\_function("USA")

**Return Values**

To let a function return a result, use the return() function:

my\_function <- function(x) {

return (5 \* x)

}

print(my\_function(3))

print(my\_function(5))

print(my\_function(9))