Lab 1

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Questions that you need to answer are in **bold**. Add your answers in the spaces provided, you may delete any blanks, _____, but do not delete the question text.

The sections of this lab match those in the Programming Basics primer on Rstudio Cloud, so you might like to tackle them as you work through the primer.

Functions

Use the `exp()` function, to find the exponential of 10.

```
exp(10)
```

```
## [1] 22026.47
```

How would you open the help page for the `exp()` function?

```
?exp
```

Arguments

Consider the code in the following chunk:

```
round(3.141593, digits = 2)
```

```
## [1] 3.14
```

How many arguments are being passed to `round()`?

Two arguments are being passed in. The first argument is pi (3.141593) and the other is the digits var (digits = 2).

What is the name of the argument that is being passed the value 3.141593?

The name of the argument being passed pi (3.141593) is 'x'. This can be found using the help page of round using "?round".

Objects

This code generates a sequence of values from 0 to 1 in steps of 0.05.

```r
steps <- seq(0, 1, 0.05)
length(steps)
```

```
## [1] 21
```

Edit the chunk above to: save the values to an object called `steps`, then use the `length()` function to find the length of `steps`.

Vectors

Consider the vector `catfood_servings`:

```r
catfood_servings <- c(Scylla = 3, Dexter = 5, Underfloor = 4)
```

Extract the 2nd element of `catfood_servings`.

```r
catfood_servings[2]
```

```
## Dexter
##      5
```

Extract the element with the name `Dexter`

```r
catfood_servings["Dexter"]
```

```
## Dexter
##      5
```

Types

```r
heights <- c("172", "167", "96", "202", "150")
names <- c("Luke Skywalker", "C-3PO", "R2-D2", "Darth Vader", "Leia Organa")
humans <- c(TRUE, FALSE, FALSE, TRUE, TRUE)
```

What type of object is `heights`? : These values are characters due to the quotes around them.

What type of object is `names`? : Again, these are characters due to the quotes around them.

What type of object is `humans`? : These values are booleans (logical).