

## Instructions

Open a new R Script where you will do the exercise and later save in the project directory.

### Part 1 (we will do this together)

#### 1.1

Create a new object called `my.num` that contains 6 numbers.

```
# General format  
my.num <- c(number1, number2, ...)
```

#### 1.2

Multiply `my.num` by 4.

#### 1.3

Create a second object called `my.char` that contains 5 character strings.

```
# General format  
my.char <- c("character1", "character2", ...)
```

#### 1.4

Combine the two objects `my.num` and `my.char` into an object called `both`.

#### 1.5

What is the length of `both`? Use the `length()` function.

#### 1.6

What class is `both`?

## Practice on Your Own!

#### P.1

Create a vector that contains 4 sets of the numbers 1, 2, 3, and 4.

### Part 2

#### 2.1

Divide `both` by 3, what happens?

#### 2.2

Create a vector with elements 1, 2, 3, 4, 5 and call it `x`.

```
# General format  
x <- c(...)
```

### 2.3

Create another vector with elements 10, 20, 30, 40, 50 and call it `y`.

```
# General format  
y <- c(...)
```

### 2.4

Determine the length of `x` and `y`. Next, add the vectors `x` and `y` together.

### 2.5

Append the value 60 onto the vector `y` (hint: you can use the `c()` function).

```
# General format  
y <- c(y, ...)
```

### 2.6

Determine the length of `x` and `y`.

### 2.7

Add `x` and `y` together. What happens?

## Practice on Your Own!

### P.2

Multiply the following `a` and `b` together. How is this similar to the way R performs addition in #10 ?

```
a <- c(1, 2, 3)  
b <- c(10, 100, 1000)
```

## Part 3

### 3.1

Create a vector object called `int_vect` that starts at 1 and goes up to 10. Use `seq()`.

```
# General format  
seq(from = NUMBER, to = NUMBER)
```

### 3.2

Repeat the `int_vect` object this sequence 3 times using `rep()` and store the new object as `int_vect_3`.

```
# General format - times and each are optional  
rep(x = OBJECT_TO_REPEAT, times = NUM_TIMES_TO_REPEAT, each = NUM_TIMES_TO_REPEAT_EACH_ELEMENT)
```

### 3.3

What is the length of `int_vect_3`?