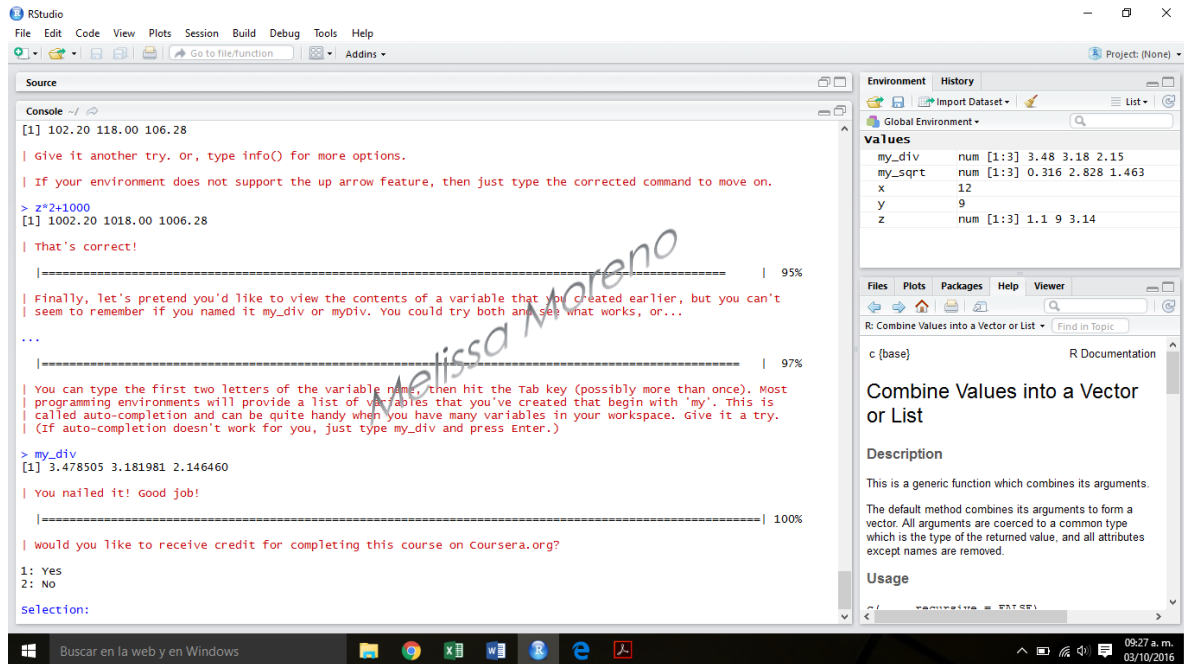
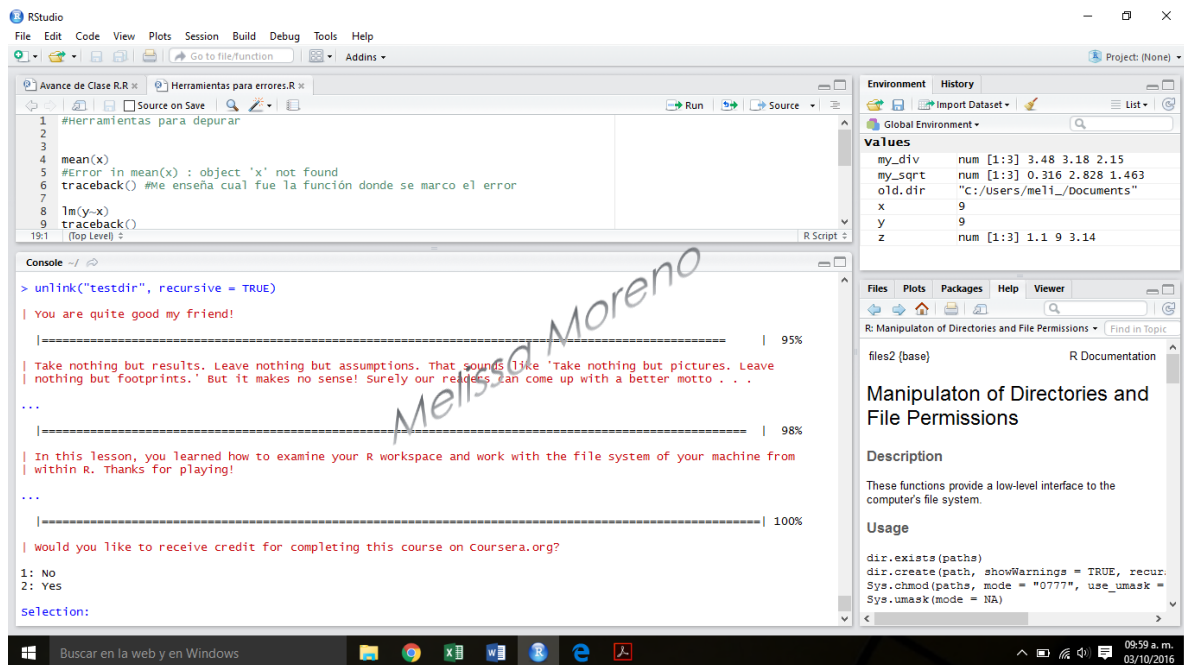


1: Basic Building Blocks



2: workspace and Files



3: Sequences of Numbers

The screenshot shows the RStudio interface. The R console on the left displays the following code and output:

```

| If we're interested in creating a vector that contains 40 zeros, we can use rep(0, times = 40). Try it out.
> rep(0,times=40)
[1] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
| Perseverance, that's the answer.
|-----| 87%

| If instead we want our vector to contain 10 repetitions of the vector (0, 1, 2), we can do rep(c(0, 1, 2),
times = 10). Go ahead.
> rep(c(0,1,2),times=10)
[1] 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2
| Nice work!
|-----| 91%

| Finally, let's say that rather than repeating the vector (0, 1, 2) over and over again, we want our vector to
contain 10 zeros, then 10 ones, then 10 twos. We can do this with the 'each' argument. Try rep(c(0, 1, 2), each
= 10).
> rep(c(0,1,2),each=10)
[1] 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
| Your dedication is inspiring!
|-----| 96%

| Would you like to receive credit for completing this course on coursera.org?
1: Yes
2: No
Selection: | 100%

```

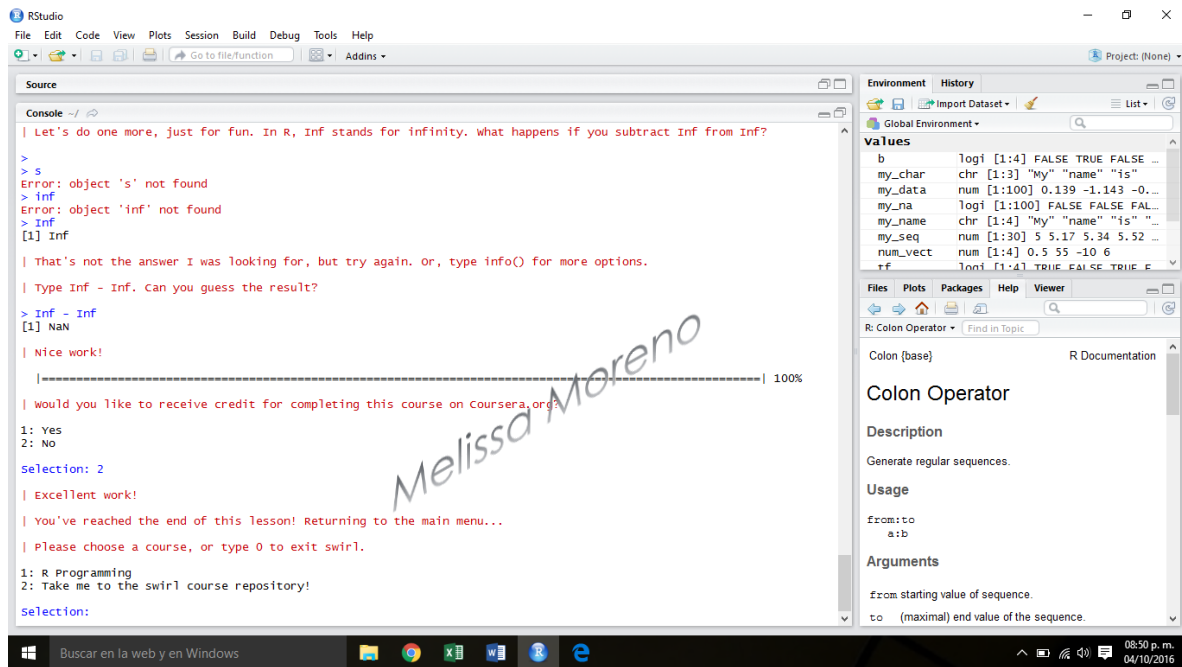
The Environment pane on the right shows the 'values' table with the following data:

my_seq	num
[1:30]	5 5.17 5.34 5.52 ...

4: Vectors

The screenshot shows the RStudio IDE. The console window displays a quiz question: "Since the character vector LETTERS is longer than the numeric vector 1:4, R simply recycles, or repeats, 1:4 until it matches the length of LETTERS." The user has selected "1" from the options: "No", "Yes", "The character vector is recycled to match the length of the numeric vector.", and "The numeric vector is recycled to match the length of the character vector." The feedback indicates the user is correct and has reached the end of the lesson.

5: Missing values



This screenshot shows the RStudio interface during Lesson 5: Missing values. The console displays a series of instructions and user inputs. The user is asked to subtract infinity from infinity, which results in NaN. The user is then asked to select a course, and they choose 'R Programming'. The environment pane on the right shows the global environment with variables like my_char, my_data, my_na, my_name, my_seq, num_vect, and tf. The Files pane shows the 'Colon Operator' documentation.

```
> | Let's do one more, just for fun. In R, Inf stands for infinity. What happens if you subtract Inf from Inf?
> s
Error: object 's' not found
> Inf
Error: object 'Inf' not found
> Inf - Inf
[1] NaN
> | That's not the answer I was looking for, but try again. Or, type info() for more options.
> | Type Inf - Inf. Can you guess the result?
> Inf - Inf
[1] NaN
> | Nice work!
> | -----| 100%
> | Would you like to receive credit for completing this course on Coursera.org?
1: Yes
2: No
Selection: 2
> | Excellent work!
> | You've reached the end of this lesson! Returning to the main menu...
> | Please choose a course, or type 0 to exit swirl.
1: R Programming
2: Take me to the swirl course repository!
Selection: 1
```

Environment: Global Environment

Variable	Class	Length	Values
b	logi	[1:4]	FALSE TRUE FALSE ...
my_char	chr	[1:3]	"my" "name" "is"
my_data	num	[1:100]	0.139 -1.143 -0.0...
my_na	logi	[1:100]	FALSE FALSE FAL...
my_name	chr	[1:4]	"my" "name" "is" "
my_seq	num	[1:30]	5 5.17 5.34 5.52 ...
num_vect	num	[1:4]	0.5 55 -10 6
tf	logi	[1:4]	TRUE FALSE TRUE F...

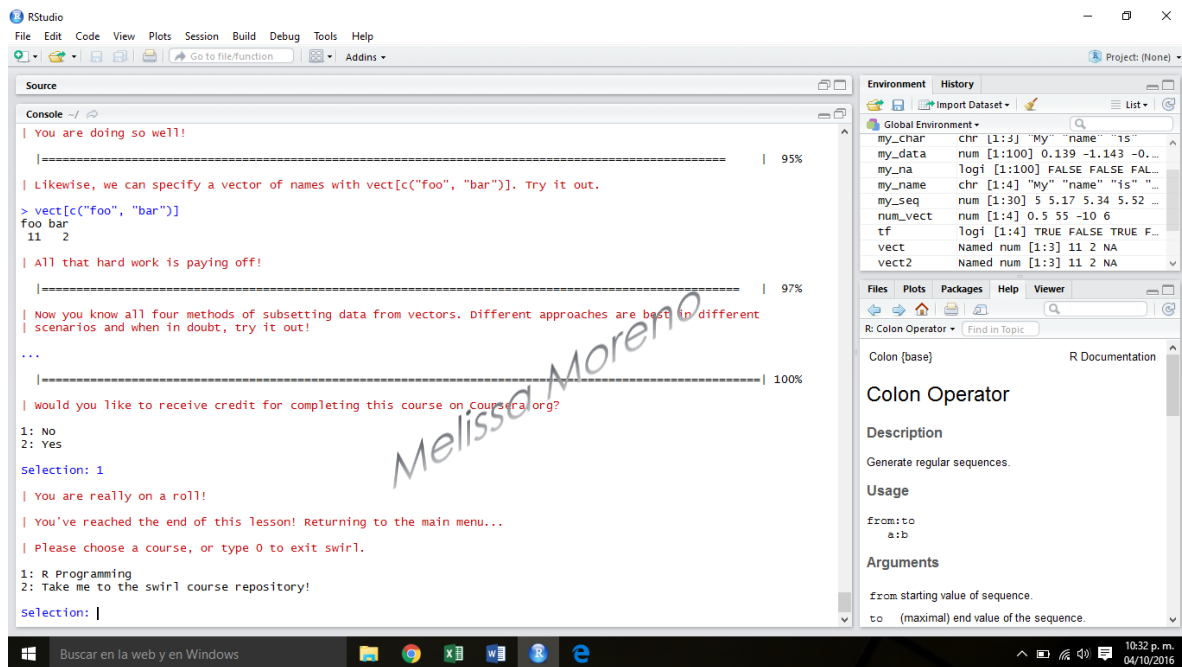
Files: Colon Operator

Description: Generate regular sequences.

Usage: from:to, a:b

Arguments: from: starting value of sequence, to: (maximal) end value of the sequence.

6: Subsetting vectors



This screenshot shows the RStudio interface during Lesson 6: Subsetting vectors. The console displays a series of instructions and user inputs. The user is asked to specify a vector of names with vect[c("foo", "bar")], which results in a vector of length 2. The user is then asked to select a course, and they choose 'R Programming'. The environment pane on the right shows the global environment with variables like my_char, my_data, my_na, my_name, my_seq, num_vect, tf, vect, and vect2. The Files pane shows the 'Colon Operator' documentation.

```
> | You are doing so well!
> | -----| 95%
> | Likewise, we can specify a vector of names with vect[c("foo", "bar")]. Try it out.
> vect[c("foo", "bar")]
foo bar
11 2
> | All that hard work is paying off!
> | -----| 97%
> | Now you know all four methods of subsetting data from vectors. Different approaches are best in different
> | scenarios and when in doubt, try it out!
...
> | -----| 100%
> | Would you like to receive credit for completing this course on Coursera.org?
1: No
2: Yes
Selection: 1
> | You are really on a roll!
> | You've reached the end of this lesson! Returning to the main menu...
> | Please choose a course, or type 0 to exit swirl.
1: R Programming
2: Take me to the swirl course repository!
Selection: 1
```

Environment: Global Environment

Variable	Class	Length	Values
my_char	chr	[1:3]	"my" "name" "is"
my_data	num	[1:100]	0.139 -1.143 -0.0...
my_na	logi	[1:100]	FALSE FALSE FAL...
my_name	chr	[1:4]	"my" "name" "is" "
my_seq	num	[1:30]	5 5.17 5.34 5.52 ...
num_vect	num	[1:4]	0.5 55 -10 6
tf	logi	[1:4]	TRUE FALSE TRUE F...
vect	Named num	[1:3]	11 2 NA
vect2	Named num	[1:3]	11 2 NA

Files: Colon Operator

Description: Generate regular sequences.

Usage: from:to, a:b

Arguments: from: starting value of sequence, to: (maximal) end value of the sequence.