01-exercises

Christopher Brown

April 6, 2016

## Exercise 1:

Write a function (f) that takes a vector of numbers, **x**, and returns a vector of numbers such that each element containing the product of every element of x except the element of x with the same index.

### Example

> x <- c( 1, 5, 2, 8 )   
> f(x)   
[1] 80 16 40 10  
# 5\*2\*8, 1\*2\*8, 1\*5\*8, 1\*2\*5

### Solution

f <- function(x) {  
 ifelse(x!=0, prod(x)/x, prod(x)/1)  
}

## Exercise 2

Write a function f(x) to accept an integer vector, and returns a vector with those numbers … except for: multiples of 3 = “Fizz” multiples of 5 = “Buzz”. multiples of 3 and 5 = “FizzBuzz”

### Example

> x <- 1:20  
> f(1:20)   
# 1 2 Fizz 4 Buzz Fizz 7 8 Fizz Buzz 11 Fizz 13 14 FizzBuzz 16 17 Fizz 19 Buzz

### Solution

f <- function(x) {  
 ifelse ((x/15 == floor(x/15)), print("FizzBuzz"),   
 ifelse((x/5) == floor(x/5), print ("Buzz"),   
 ifelse((x/3) == floor(x/3), print ("Fizz"), print (x))))  
   
}