Assignment #4: Basic of function in R

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# Questions #1 - 4

**#1 Write a function: input a number x and return x^2+3x+1**

**cubicf = function(x)**

**{**

**return(x^2 + 3\*x + 1)**

**}**

**cubicf(3)**

**#2 Write a function: input a vector and return the product of all the entries in the vector**

**vector1 <- function(x)**

**{**

**return(prod(x))**

**}**

**vector1(c(1,2,3,4))**

**#3 Write a function: input a vector v and a number n and return a vector with its missing data being replaced by n**

**vector2<- function(v,n)**

**{**

**v[is.na(v)]<- n**

**return(v)**

**}**

**v5<- c(5,NA,6)**

**vector2(v5,6)**

**#4 Write a function: input a numeric vector and return a vector with its missing data being replaced by the mean of the vector**

**F4<- function(x)**

**{**

**avg <- mean(x,na.rm = TRUE)**

**x[is.na(x)] <- avg**

**return(x)**

**}**

**> F4(c(NA,2,3,4))**

\* Had trouble answering the last three questions of the assignment so I left those questions blank.