**1. Write a function called sum\_of\_cubes, that calculates the sum of cubes of the first n**

natural numbers :

• if we have two numbers : 1, 2 then sum of squares is 9 ( 1^3 + 2^3)

• if we have three numbers : 1, 2, 3 then sum of squares is 36 ( 1^3 + 2^3 + 3^3)

**Solution1:**

Getn <- function(x ){ (x\*(x+1)/2)^2}

**2. Write a function to calculate the mode (highest frequency) of the following vector:**

x = c(2,3,3,4,4,5,6,7,9,10)

**Solution2a:**

getmode <- function(x) {

uniqv <- unique(x)

uniqv[which.max(tabulate(match(x, uniqv)))]

}

Write a function to calculate the no. of prime numbers of the following vector :

x = c(2,2,3,3,4,5,7,11,15,19,24,29)

**Solution2b:**

library(schoolmath)

sum(is.prim(primelist))