

**CSE1007 : Foundations for Data Analytics**

**Name :** Gudi Varaprasad

**Reg. No. :** 19BCE7048

School of Computer Science and Engineering

**Lab Slot :** L33 + L34

**Date :** 04 – 02 – 2021

**Submitted to :** Ms. Deepasikha Mishra madam

**LAB 1 : Basics of R**

**Date : 04-02-2021**

Q1. Practice Some basic calculations.

Log of 3

> log(3)

**[1] 1.098612**

>

Square root of 121

> sqrt(121)

**[1] 11**

>

Power : ((p-(q+r))\*s) where take input as p=5, q=2, r=3, s=6

> p = as.integer(readline(prompt="Enter p = "))

**Enter p = 5**

> q = as.integer(readline(prompt="Enter q = "))

**Enter q = 2**

> r = as.integer(readline(prompt="Enter r = "))

**Enter r = 3**

> s = as.integer(readline(prompt="Enter s = "))

**Enter s = 6**

> answer = (p-(q+r))\*s

> answer

**[1] 0**

Q2. Abhisekh is buying the number of baskets where each basket is containing n number of eggs. Take input of the number of baskets, the number of eggs in each basket and the cost of each egg. Write a R program for calculating the cost of the total number of eggs.

> numberOfBaskets = as.integer(readline(prompt="Enter Number of Baskets : "))

**Enter Number of Baskets : 6**

> numberOfEggs = as.integer(readline(prompt="Enter Number of Eggs in each basket : "))

**Enter Number of Eggs in each basket : 8**

> costOfEgg = as.integer(readline(prompt="Enter cost of each Egg : "))

**Enter cost of each Egg : 3**

> totalCostOfEggs = numberOfBaskets \* numberOfEggs \* costOfEgg

> print(paste("Total Cost of Eggs = ", totalCostOfEggs))

**[1] "Total Cost of Eggs = 144"**

Q3. Defining and initializing a vector and calculate Mean, Variance, Standard deviation.  
  
> myVector = c(5.04, -1.1, 3, 8.22, -0.7, 9)

> vectorMean = mean(myVector)

> print(paste("Mean is = ", vectorMean))

**[1] "Mean is = 3.91"**

>

> vectorVariance = (sum((myVector - vectorMean)^2))/length(myVector)

> print(paste("Variance is = ", vectorVariance))

**[1] "Variance is = 15.4902333333333"**

>

> vectorStandardDeviation = sqrt(vectorVariance)

> print(paste("Standard deviation is = ", vectorStandardDeviation))

**[1] "Standard deviation is = 3.935763373646"**

**-----------------------------**