

**Sub : Foundations for Data Analytics**

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**Assignment 1:**

**Date: 04/02/2021**

**Q1. Practice Some basic calculations.**

**Log of 3**

**> log(3)**

```
Console Terminal x Jobs x
E:\VITAP\19BCE7048\Semester_4\Foundation for Data Analytics\LAB\LAB1/
> # Q1. Practice some basic calculations :
>
> # Log of 3 =
> log(3)
[1] 1.098612
> |
```

**Square root of 121**

**> sqrt(121)**

```
> # Square root of 121
> sqrt(121)
[1] 11
> |
```

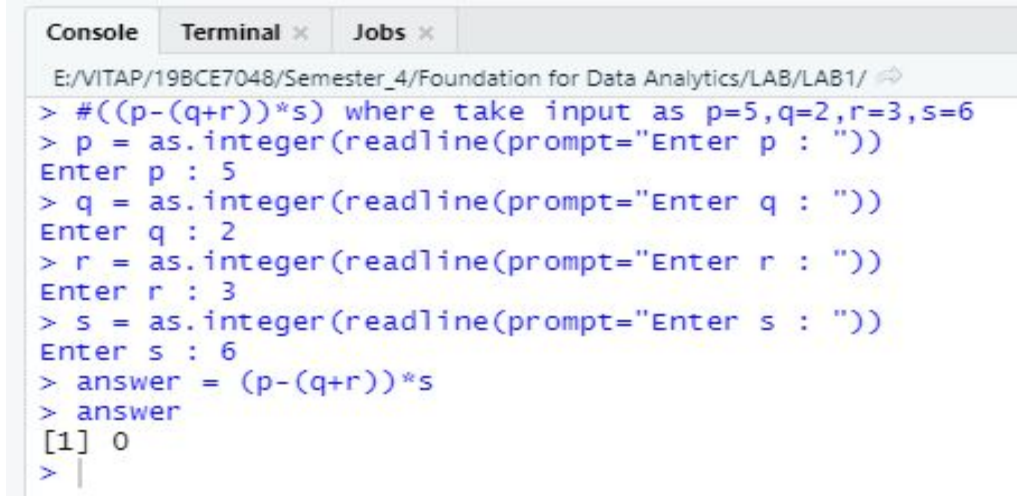
**Power :  $((p-(q+r))*s)$  where take input as  $p=5, q=2, r=3, s=6$**

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

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

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

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



```
Console Terminal x Jobs x
E:/VITAP/198CE7048/Semester_4/Foundation for Data Analytics/LAB/LAB1/
> #((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 contains 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 :
"))
```

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

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

```
> totalCostOfEggs = numberOfBaskets * numberOfEggs * costOfEgg
```

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

```
Console Terminal x Jobs x
E:/VITAP/19BCE7048/Semester_4/Foundation for Data Analytics/LAB/LAB1/ ↗
> numberOfBaskets = as.integer(readline(prompt="Enter Number of Baskets : "))
Enter Number of Baskets : 7
> 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 : 4
> totalCostOfEggs = numberOfBaskets * numberOfEggs * costOfEgg
> print(paste("Total Cost of Eggs = ", totalCostOfEggs))
[1] "Total Cost of Eggs = 224"
> |
```

### Q3. Defining and initializing a vector and calculating Mean, Variance, Standard deviation.

```
> myVector = c(5.04, -1.1, 3, 8.22, -0.7, 9)
```

```
> vectorMean = mean(myVector)
```

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

```
Console Terminal x Jobs x
E:/VITAP/19BCE7048/Semester_4/Foundation for Data Analytics/LAB/LAB1/ ↗
> # 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))
```

```
Console Terminal x Jobs x
E:/VITAP/19BCE7048/Semester_4/Foundation for Data Analytics/LAB/LAB1/ ↗
> 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))

```
Console Terminal x Jobs x
E:/VITAP/19BCE7048/Semester_4/Foundation for Data Analytics/LAB/LAB1/ ↗
> vectorStandardDeviation = sqrt(vectorVariance)
> print(paste("Standard deviation is = ", vectorStandardDeviation))
[1] "Standard deviation is = 3.935763373646"
> |
```

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