**Exercise: Basics of R**

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| **Sr No** | **Task** |
| 1 | Add 3 to 7, multiply 4 and 8,  Ans:  > 3+7  [1] 10 |
| 2 | Test logical statements 12 > 18 and 12+18 = 40  > (12> 8) & (12 +18 == 40 )  [1] FALSE |
| 3 | Type **I HAVE LEARNT R** 3 times   |  | | --- | | > x=rep("I HAVE LEARNT R",times=3 )  > x  [1] "I HAVE LEARNT R" "I HAVE LEARNT R" "I HAVE LEARNT R" | |  | | |  | | --- | | > | | |
| 4 | Create a vector name **dear** having 3 items **Bangalore, Kolkata, Mumbai**  > dear <- c("Bangalore","Kolkata","Mumbai")  > dear  [1] "Bangalore" "Kolkata" "Mumbai" |
| 5 | Create a vector name **dearer** having 3 items **84, 65, 39**  > dearer <-c (84,65,39)  > dearer  [1] 84 65 39 |
| 6 | Create a vector name **dearest** having numbers from **101** to **107**  > dearest <- c (101:107)  > dearest  [1] 101 102 103 104 105 106 107 |
| 7 | Access the third item in vector **dear**  > dear[3]  [1] "Mumbai" |
| 8 | Add new city, **Chennai** at 4th place in vector **dear**  > dear [4] <- c("chennai")  > dear[4]  [1] "chennai" |
| 9 | Access 2nd & 4th item in vector **dear**  > dear[c(2,4)]  [1] "Kolkata" "chennai" |
| 10 | Create a vector name **d** having numbers 4, 5, 6 and another vector **h** having  numbers 2, 3, 4. Multiply vector **d** with **h**.  > d <-c(4,5,6)  > h <-c(2,3,4)  > d\*h  [1] 8 15 24 |
| 11 | Check numbers **84, 65, 38** in vector **dearer**  > subv <- c(84,65,38)  > subv %in% dearer  [1] TRUE TRUE FALSE |
| 12 | Sum the values given in vector **k**, 3, 8, NA, 9  > k <- c(3,8,NA,9)  > sum(k,na.rm=TRUE)  [1] 20 |
| 13 | Create a matrix of order 2 by 2 having all numbers as 1  > matrix(1,2,2)  [,1] [,2]  [1,] 1 1  [2,] 1 1 |
| 14 | Say a vector **w** is having numbers 1, 2, 3, 4, 5, 6. Create a 2 by 3 matrix using this vector **w**  > w <- c(1,2,3,4,5,6)  > matrix(w,2,3)  [,1] [,2] [,3]  [1,] 1 3 5  [2,] 2 4 6 |
| 15 | Say a vector **q** is having numbers from 1 to 6. Create a matrix of the order 2 by 3  > q <- c(1:6)  > matrix(q,2,3)  [,1] [,2] [,3]  [1,] 1 3 5  [2,] 2 4 6 |
| 16 | Say names of students are stored in vector **names** (names were Alberic, John, Steve, Chris). Their midterm marks are stored in vector **midterm** (87, 89, 93, 95 respectively). Their final marks are stored in vector **final** (92, 94, 95, 98 respectively). Create a data frame name **result** keeping all three vectors in it.  > names <- c('Alberic','John', 'Steve', 'Chris')  > midterm <-c (87, 89, 93, 95)  > final<-c(92,94,95,98)  > result <-data.frame(names,midterm,final)  > result  names midterm final  1 Alberic 87 92  2 John 89 94  3 Steve 93 95  4 Chris 95 98 |
| 17 | Access second column (i) by the number of column (ii) by name of the column (iii) by $ sign  > # By number of the column  > result[[2]]  [1] 87 89 93 95  >    > #By name of the column  > result[['midterm']]  [1] 87 89 93 95 |
| 18 | > #By $ sign  > result$midterm  [1] 87 89 93 95  Two csv files are given to you in the folder name (i) **merge1** (ii) **merge2**. Import files in R  > merge1 <- read.csv("D://Imarticus//R Learning//Vinodth Sir Docment//merge1.csv")  > merge2 <- read.csv("D://Imarticus//R Learning//Vinodth Sir Docment//merge2.csv") |
| 19 | Merge files merge1 and merge2 and give name **tests**  > tests <- merge(merge1,merge2)  > tests  firstname gpa quiz1 final  1 ALFRED 1.18 6 53  2 ANN 3.98 7 68  3 JACKIE 2.46 10 57  4 SCOTT 2.19 10 54  5 VALERIE 1.84 7 66 |
| 20 | Save the merged data set **tests** at your desktop  write.csv(tests,"D://Imarticus//R Learning//Vinodth Sir Docment//tests.csv") |