**R Programming \_Basic\_Task 1**

1. **Vector recycling**

c(1,2,3) + c(4,5,6)

=> 5, 7, 9

1. **Inner multiplication**

m <- matrix(1:6, nrow=2)

print(m)

=> [,1] [,2] [,3]

[1,] 1 3 5

[2,] 2 4 6

1. **Outer multiplication**

m <- outer(1:3, 1:2)

print(m)

=> [,1] [,2]

[1,] 1 2

[2,] 2 4

[3,] 3 6

1. **Functions**
   1. sample()

sample(1:5) => random 1,2,5,4,3

* 1. seq()

seq(5) => 1,2,3,4,5

* 1. rep()

rep(1:3, 2) => 1,2,3,1,2,3

* 1. round()

round(1.50) => 2

* 1. factorial()

factorial(5) => 120

* 1. is()

is.integer(1) => False

* 1. mean()

mean(3, 5) = 3

* 1. set.seed()

set.seed(3)

rnorm(1) => -0.9619334

1. **subset**

subset(airquality, Temp > 90, select = c(Ozone, Temp))

=> Ozone Temp

42 NA 93

43 NA 92

69 97 92

70 97 92

75 NA 91

102 NA 92

120 76 97

121 118 94

122 84 96

123 85 94

124 96 91

125 78 92

126 73 93

127 91 93

1. **Write a program to calculate the BMI rate?Get the user input & Result should be** in integer.

h <- readline(prompt="Enter height(m): ")

w <- readline(prompt="Enter weight(kg): ")

print(as.integer(w/h^2))

=> Enter height(m): 1.71

Enter weight(kg): 71

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1. **Create a function to calculate the BMI Rating? Result should be in integer**?

BMI = function(h,w){

return (as.integer(w/h^2))

}

print(BMI(1.71,71))

=> 24