Assignment 15.3

Question 1) Write a R program using control operators to test whether following values are prime numbers or not by providing a PRIME or NOT PRIME message as output :

1. 103 b. 82 c. 179

Answer) Code for the above stated problem

flag = 0

# prime numbers are greater than 1

num = 103

if(num > 1) {

# check for factors

flag = 1

for(i in 2:(num-1)) {

if ((num %% i) == 0) {

flag = 0

break

}

}

}

if(num == 2) flag = 1

if(flag == 1) {

print("PRIME")

} else {

print("NOT PRIME")

}

OUTPUT:-

[1] "PRIME"

b) 82

Answer) TO check whether 82 is prime number or not.

flag = 0

# prime numbers are greater than 1

num = 82

if(num > 1) {

# check for factors

flag = 1

for(i in 2:(num-1)) {

if ((num %% i) == 0) {

flag = 0

break

}

}

}

if(num == 2) flag = 1

if(flag == 1) {

print("PRIME")

} else {

print("NOT PRIME")

}

OUPUT:-

[1] "NOT PRIME"

C) 179

Answer) To check whether 179 is a prime number or not.

flag = 0

# prime numbers are greater than 1

num = 179

if(num > 1) {

# check for factors

flag = 1

for(i in 2:(num-1)) {

if ((num %% i) == 0) {

flag = 0

break

}

}

}

if(num == 2) flag = 1

if(flag == 1) {

print("PRIME")

} else {

print("NOT PRIME")

}

OUTPUT:-

[1] "PRIME"