



# MATH FOR PROGRAMMING

## EXERCISES



## Question 01:

Choose a prime number from the range of 50 to 100. We will call it P. Write in Details

## Question 02:

Find the binary representation of P. You must show the process.

## Question 03:

You and your friends in class might be choosing different values for P. Can anybody choose a P that is an odd number? Explain your answer.

## Question 04:

Ternary numbers are formed with a number system with base 3. Given the ternary number 10212, find its decimal value. Write in Details

## Question 05:

Build a sieve of Eratosthenes to determine if 19 is a prime number. Show the state of the table at each step.

## Question 06:

Take two natural numbers X and Y. If  $X * Y = Z$ , is Z even or odd when X and Y -

(Case 1) both are even: even / odd

(Case 2) both are odd: even / odd

(Case 3) One of them is odd, the other one is even: even / odd

**Note: (Answer in even or odd)** Write in Details