# Decimal & Binary Number System

## 1) Binary Number System:

Computer understand the language of 0's and 1's that is binary language. The base of binary number is 2 that is only 0 and 1 are used to represent any number in the binary number system.

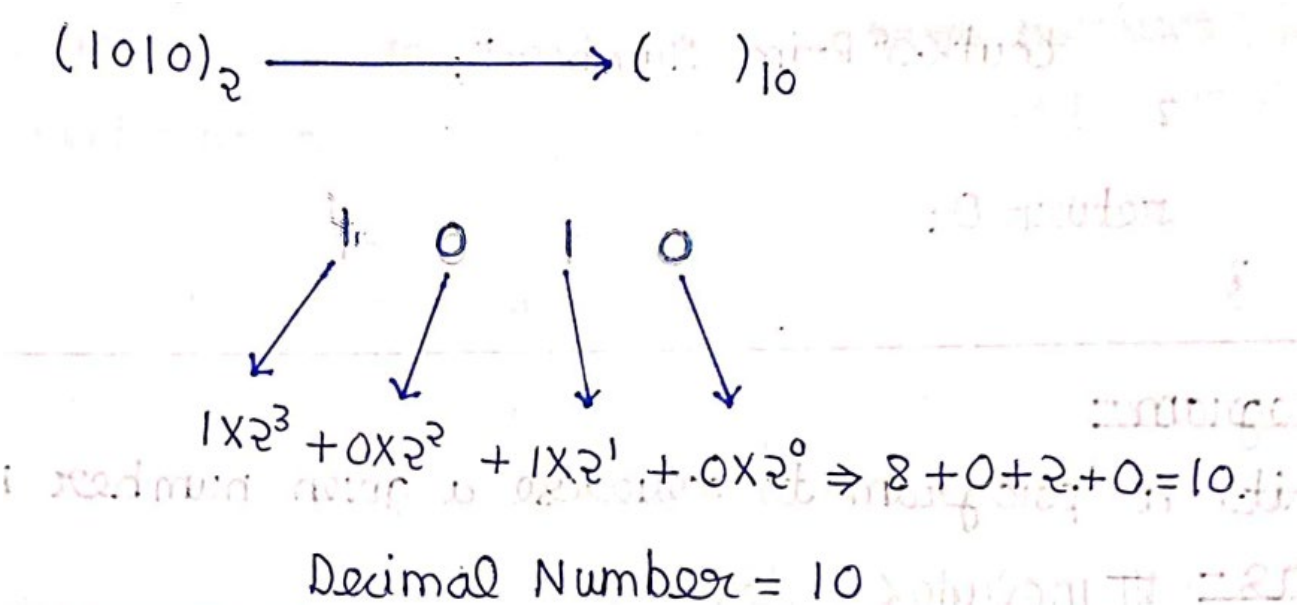
**Ex:** 10011

## 2) Decimal Number System:

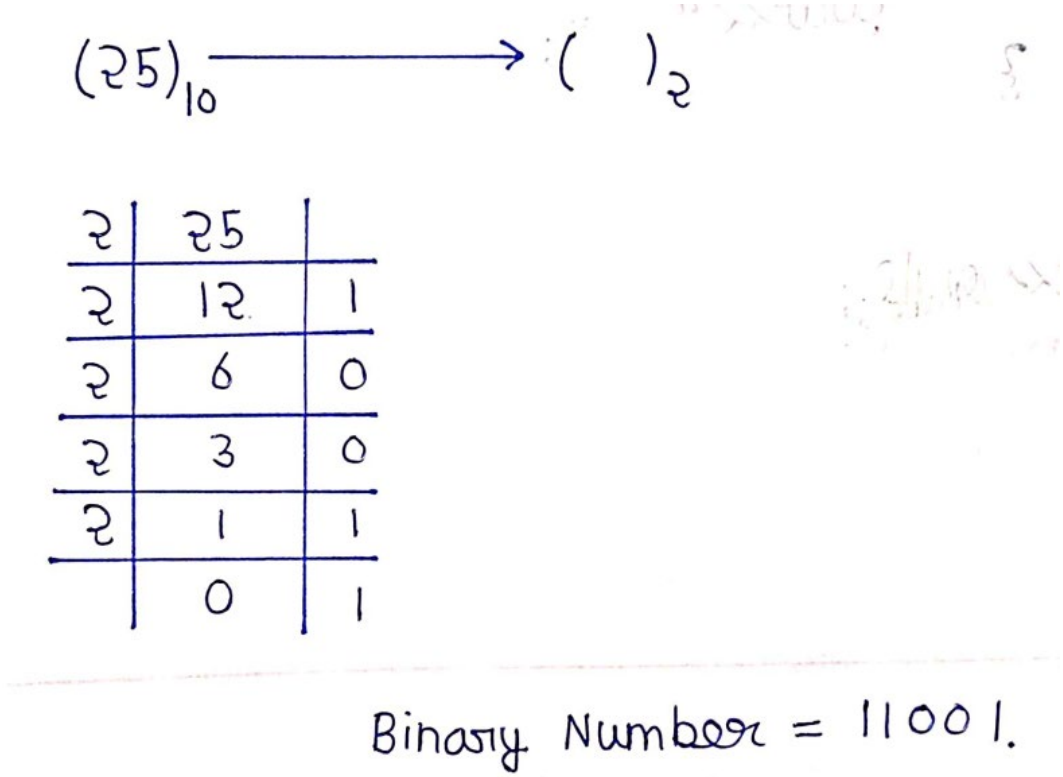
Decimal number system is a number system that we use in our day-to-day life. The decimal number system has its base as 10 that is any number in the decimal number system is represented using the digits 0-9.

**Ex:** 678

## 3) Binary to Decimal Conversion:



## 4) Decimal to Binary Conversion:




## 5) Decimal to Binary Conversion Code:

```
int DecimalToBinary(int n){
  int i=0, ans = 0;
  while(n!=0){
    int lastDigit = n%2;
    ans = ans + lastDigit * pow(10,i);
    n = n/2;
    i++;
  }
  return ans;
}
```

## 6) Decimal to Binary Conversion Code:

```
int BinaryToDecimal(int n){
  int i=0, ans = 0;
  while(n!=0){
    int lastDigit = n%10;
    ans = ans + lastDigit * pow(2,i);
    n = n/10;
    i++;
  }
  return ans;
}
```