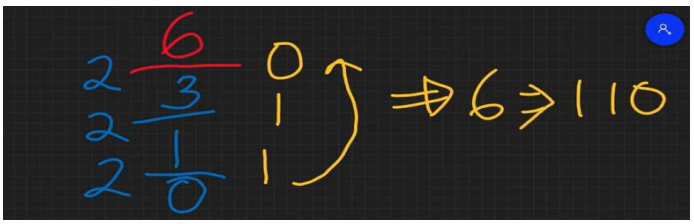
Contoh dg logika untuk konversi bilangan desimal ke bilangan biner.

1. Bilangan dimasukkan oleh user dilakukan perintah ‘div’



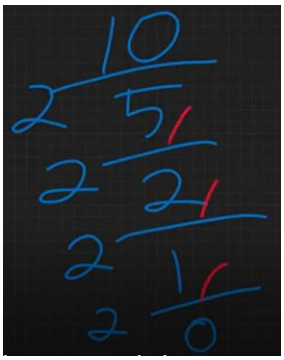
```
In [11]:
1 bilangan=int(input('masukkan bilangan = '))
2 hasilDiv=bilangan
3 while hasilDiv!=0:
4     hasilDiv=hasilDiv//2
5     print(hasilDiv)

masukkan bilangan = 6
3
1
0
```

```
In [12]:
1 bilangan=int(input('masukkan bilangan = '))
2 hasilDiv=bilangan
3 while hasilDiv!=0:
4     hasilDiv=hasilDiv//2
5     print(hasilDiv)

masukkan bilangan = 4
2
1
0
```

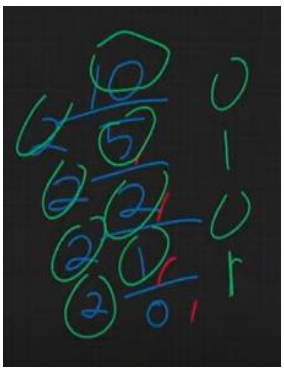
Stop condition bias diletakan di deklarasi ‘while’



```
In [13]:
1 bilangan=int(input('masukkan bilangan = '))
2 hasilDiv=bilangan
3 while hasilDiv!=0:
4     hasilDiv=hasilDiv//2
5     print(hasilDiv)

masukkan bilangan = 10
5
2
1
0
```

2. Bilangan juga dilakukan perintah ‘mod’. Catatan: yang di ‘mod’ adalah hasil bagi (div)



```
In [15]: bilangan=int(input('masukkan bilangan = '))
         hasilDiv=bilangan
         while hasilDiv!=0:
             hasilMod=hasilDiv%2
             hasilDiv=hasilDiv//2
             print(hasilMod)

masukkan bilangan = 6
0
1
1
```

```
In [16]: bilangan=int(input('masukkan bilangan = '))
         hasilDiv=bilangan
         while hasilDiv!=0:
             hasilMod=hasilDiv%2
             hasilDiv=hasilDiv//2
             print(hasilMod)

masukkan bilangan = 4
0
0
1
```

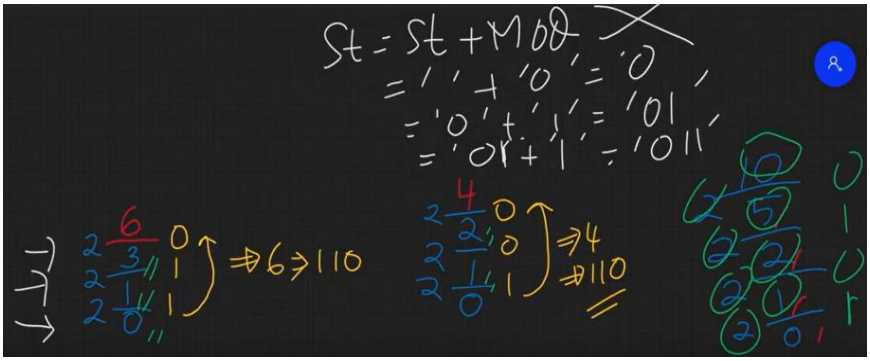
```
In [17]: bilangan=int(input('masukkan bilangan = '))
         hasilDiv=bilangan
         while hasilDiv!=0:
             hasilMod=hasilDiv%2
             hasilDiv=hasilDiv//2
             print(hasilMod)

masukkan bilangan = 10
0
1
0
1
```

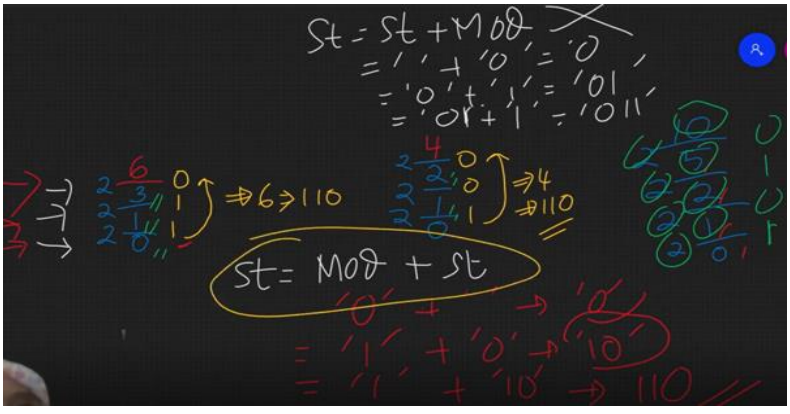
3. Membaca hasil konversi desimal ke biner

Bagaimana dibaca kebalik dari bawah ke atas?

Kemungkinan 1:



Kemungkinan 2:



In [18]:
```
bilangan=int(input('masukkan bilangan = '))
hasilDiv=bilangan
strBiner=''
while hasilDiv!=0:
    hasilMod=hasilDiv%2
    hasilDiv=hasilDiv//2
    #strBiner=strBiner+str(hasilMod)
    strBiner=str(hasilMod)+strBiner
    print(hasilMod)
print(bilangan,':',strBiner)
```

```
masukkan bilangan = 6
0
1
1
6 : 110
```

In [20]:
```
bilangan=int(input('masukkan bilangan = '))
hasilDiv=bilangan
strBiner=''
while hasilDiv!=0:
    hasilMod=hasilDiv%2
    hasilDiv=hasilDiv//2
    #strBiner=strBiner+str(hasilMod)
    strBiner=str(hasilMod)+strBiner
    print(hasilMod)
print(bilangan,':',strBiner)
```

```
masukkan bilangan = 10
0
1
0
1
10 : 1010
```