In [1]:
```
#Q1 Create a python program that calls 2 user defined function to find the
#two numbers from user and pass it to functions.
x=int(input("Enter number 1: "))
y=int(input("Enter number 2: "))
mul=x*y
while (x!=y):
    if(x>y):
        x=x-y
    else:
        y=y-x

print("GCD = ",x)
lcm=mul//x
print("LCM = ",lcm)
```

```
Enter number 1: 10
Enter number 2: 15
GCD =  5
LCM =  30
```

In [13]:
```
#Q2. Create a python program to read a decimal number from user and conver
#number.
n = int(input("Enter a decimal number : "))

binary = []
while (n > 0):
    r=n%2
    binary.insert(0,r)
    n = n//2
for i in binary:
    print(i, end = " ")
```

```
Enter a decimal number : 10
1 0 1 0
```

In [2]:
```
#Octal
n = int(input("Enter a decimal number : "))
octal = []
while (n > 0):
    p=n%8
    octal.insert(0,p)
    n = n//2
for u in octal:
    print(u, end = " ")
```

```
Enter a decimal number : 10
1 2 5 2
```

In [ ]:
```
#Q3. Create a Python program to read n strings from user, store them into
#even length
lst=[]
n=int(input("How many strings: "))
for i in range(n+1):
    st=input("Enter string: ")
    lst.append(st)
print(lst)
```

In [ ]:
```
#Q4. Accept data for 5 students with tuple including roll number, name, ar
max=0
record=()
for i in range(5):
    rno=(int(input("Enter Roll No: ")))
    name=(input("Enter your name: "))
    per=(int(input("Enter the percentage: ")))
    cl=(input("Enter class: "))
    #record=(rno,name,per,cl)
    #print(record)

if per>max:
    rec = (rno, name, per, cl)
    max = per
print(rec)
```

In [3]:
```
#Q5. Create a Python program to demonstrate the use of Set data structure
#elements.

A = {1,2,3,4,5}
B = {4,5,6,7,8}
print (A|B)

#Union
A.union(B)
B.union(A)

#Intersection
A.intersection(B)

#Symmetric Difference

print(A-B)
A.difference(B)
B.difference(A)
```

```
{1, 2, 3, 4, 5, 6, 7, 8}
{1, 2, 3}
```

Out[3]: {6, 7, 8}