Finding the sum of 10 numbers taken from the user

In [18]:
```python
sum = 0
for x in range(0,10):
    val = int(input("Enter Value %d " %(x+1)))
    sum += val

print("Sum of Numbers = ", sum)
```

```
Enter Value 1 1
Enter Value 2 2
Enter Value 3 3
Enter Value 4 4
Enter Value 5 5
Enter Value 6 6
Enter Value 7 7
Enter Value 8 8
Enter Value 9 9
Enter Value 10 10
Sum of Numbers =  55
```

Finding the sum of n numbers taken from the user, where n is taken from the user as well.

In [24]:
```python
n = int(input("Enter n "))
sum = 0
for x in range(n):
    val = int(input("Enter Value %d " %(x+1)))
    sum += val

print("Sum of ", n , " numbers = ", sum)
```

```
Enter n 5
Enter Value 1 1
Enter Value 2 2
Enter Value 3 3
Enter Value 4 4
Enter Value 5 5
Sum of  5  numbers =  15
```

Calculate the factorial of a positive integer entered by the user.

In [28]:
```python
n = int(input("Enter n "))
fact = 1
for x in range(1,n+1):
    fact *= x

print(n , "!  = ", fact)
```

```
Enter n 10
```

```
10 !  =  3628800
```

Take two positive integers a and n from the user. Calculate and display a n Assume that the power operator is not available.

In [35]:
```python
a = int(input("Input the value of a "))
n = int(input("Input the value of n "))
x = 1

for i in range(n):
    x *= a

print(a, "^", n, " = ", x)
```

```
Input the value of a 10
Input the value of n 2
10 ^ 2  =  100
```

Take three numbers from the user and determine the largest number. Do it using a loop.

In [ ]:
```python
a = int(input("Input the value of a "))
b = int(input("Input the value of b "))
c = int(input("Input the value of c "))

arr = [a,b,c]
lar = arr[0]
for i in range(1,3):
    if lar < arr[i]:
        lar = int(a[i])

print("Largest Number = ", lar)
```

Take a positive integer from the user. Keep displaying an error message and prompting for input again and again if the user enters invalid input (negative or zero).

In [64]:
```python
while True :
    n = int(input("Input the number : "))
    if n > 0:
        break
    else:
        print("Incorrect Number. Enter Again")

print(n)
```

```
Input the number : -5
Incorrect Number. Enter Again
Input the number : 0
Incorrect Number. Enter Again
Input the number : 3
3
```

Write an algorithm to determine the sum of a variable number of positive integers taken from the user. The algorithm should keep prompting the user for more input till the user enters the sentinel value -999.

In [65]:
```python
sum = 0
while True:
    val = int(input("Enter number : "))
    if val == -999:
        break
    sum += val

print("Sum = ", sum)
```

```
Enter number : 1
Enter number : 2
Enter number : 3
Enter number : 4
Enter number : 5
Enter number : 6
Enter number : 7
Enter number : 8
Enter number : 9
Enter number : 10
Enter number : -999
Sum =  55
```

Input a 2-digit number and find absolute difference between its digits.

In [69]:
```python
val = int(input("Enter a two - digit number "))

a = int(val / 10)
b = val - (a*10)

c = a - b

if c < 0 :
    c *= -1
print("Difference is : ", c)
```

```
Enter a two - digit number 19
Difference is :  8
```

Input SLimit and ELimit from user, and display Even numbers between range, with both limits included

In [77]:
```python
slimit = int(input("Enter Lower Limit "))
elimit = int(input("Enter upper Limit "))

for i in range(slimit, elimit+1):
    if i % 2 == 0:
        print (i)
```

```
Enter Lower Limit 5
Enter upper Limit 10
6
8
10
```