Tamrin1

In [2]:
```
n = int(input("n: "))
for i in range(1,n+1):
    for j in range(1,n+1):
        print(i*j,end=" ")
    print()
```

```
n: 5
1 2 3 4 5
2 4 6 8 10
3 6 9 12 15
4 8 12 16 20
5 10 15 20 25
```

Tamrin2

In [16]:
```
sentence = input()
sumOfDigit = 0
vowels = 0
digits = 0
allCharacter = {}


for ch in sentence.lower():
    allCharacter[ch]=allCharacter.get(ch,0)+1
    if ch in "0123456789":
        digits+=1
        sumOfDigit+=float(ch)
    elif ch in "aioue":
        vowels+=1

print("Vowels:",vowels)
print("Digits:",digits)
print("Sum of digits:",sumOfDigit)

for key in allCharacter.keys():
    if allCharacter[key]>1:
        print(str(key),allCharacter[key],sep=':',end=" , ")
```

```
Hello akbar11, date: 1399/12/10, time: 12:05:2
Vowels: 8
Digits: 15
Sum of digits: 38.0
e:3 , 1:2 ,  :5 , a:3 , 1:6 , ,:2 , t:2 , ::4 , 9:2 , /:2 , 2:3 , 0:2 ,
```

Tamrin 3

In [19]:
```
listOfNumbers = list(map(float,input().split()))

maximum = listOfNumbers[0]
minimum = listOfNumbers[0]
sumOfList=0
avarage = 0

for i in listOfNumbers:
    if i > maximum:
        maximum = i
    if i < minimum:
        minimum = i
    sumOfList += i

avarage=sumOfList/len(listOfNumbers)

print("Maximum:",maximum)
print("Minimum", minimum)
```

```
print("Avarage",avarage)
```

```
10 12 15 20 8
Maximum: 20.0
Minimum 8.0
Avarage 13.0
```

Tamrin4

In [20]:
```
print(float(0))
```

```
0.0
```

In [21]:
```
print(int(-112.22))
```

```
-112
```

In [22]:
```
print(bool(12.22))
```

```
True
```

In [23]:
```
print(bool(0))
```

```
False
```

In [24]:
```
print(int(''))
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-24-1f3cd6bc377a> in <module>
----> 1 print(int(''))

ValueError: invalid literal for int() with base 10: ''
```

In [25]:
```
print(str(float('-12.22')))
```

```
-12.22
```

In [26]:
```
print(float(True))
```

```
1.0
```

In [27]:
```
print(int('12/5'))
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-27-6180734ecc65> in <module>
----> 1 print(int('12/5'))

ValueError: invalid literal for int() with base 10: '12/5'
```

In [28]:
```
print(bool('0'))
```

```
True
```

In [30]:
```
print(int(str(bool(12.345))))
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-30-e02636c68fce> in <module>
----> 1 print(int(str(bool(12.345))))

ValueError: invalid literal for int() with base 10: 'True'
```

Tamrin5

In [ ]:
```
list1=['morning','afternoon','night']
list2=['Saturday','Sunday','Monday','Tuesday','Wednesday','Thursday','Friday']
tags=[]
```

In [33]:
```
for day in list2:
    for time in list1:
        tags.append(day+'-'+time)
print(tags)
```

```
['Saturday-morning', 'Saturday-afternoon', 'Saturday-night', 'Sunday-morning', 'Sunday-afternoon', 'Sunday-night', 'Monday-morning', 'Monday-afternoon', 'Monday-night', 'Tuesday-morning', 'Tuesday-afternoon', 'Tuesday-night', 'Wednesday-morning', 'Wednesday-afternoon', 'Wednesday-night', 'Thursday-morning', 'Thursday-afternoon', 'Thursday-night', 'Friday-morning', 'Friday-afternoon', 'Friday-night']
```

Tamrin6

In [41]:
```
num1,op,num2 = input().split()
if op == '+':
    result= float(num1)+float(num2)
elif op== '-':
    result= float(num1)-float(num2)
elif op== '*':
    result= float(num1)*float(num2)
elif op== '/':
    if float(num2)==0:
        result = "Error(num2 = 0 in divition)"
    else:
        result= float(num1)/float(num2)

print("Result:",result)
```

```
41 * 25
Result: 1025.0
```

Tamrin7

In [43]:
```
listCharacters = list(input())
dictOfCharacter = dict()
for ch in listCharacters:
    dictOfCharacter[ch]=dictOfCharacter.get(ch,0)+1

for key in dictOfCharacter.keys():
    print(key,dictOfCharacter[key],sep=':')
```

```
aada52d
a:3
d:2
5:1
2:1
```

Tamrin8

In [44]:
```
n = int(input())
i = 1
while (n!=0):
    if i<n:
        print(i*'*')
        i+=1
    else:
        print(n*'*')
        n-=1
```

```
5
*
**
```

```
***
****
*****
****
***
**
*
```

Tamrin 9

In [52]:

```
n= int(input())
seen=[[0 for i in range(n)] for j in range(n)]
value=[[0 for i in range(n)] for j in range(n)]
def paskal(row,col):
    if seen[row][col]==1:
        return value[row][col]

    seen[row][col]=1
    if col==0  or row==col:
        value[row][col]=1
    else:
        value[row][col]=paskal(row-1,col)+paskal(row-1,col-1)
    return value[row][col]

for i in range(n):
    for j in range(i+1):
        print(paskal(i,j),end=' ')
    print()
```

```
8
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1
```