GRADE-LEVEL BASIC-PAY OTHER-ALLOWANCES

A	60000	8000
B	50000	7000
C	40000	6000
D	30000	5000
F	20000	4000
E	10000	3000

Gross-pay=Basic-pay+HRA+DA+other-allowence+TA-professional-Tax-EPF

HRA

city

class-1 0.3 of basic pay
class-2 0.2 of basic pay
class-3 0.1 of basic pay

professional-tax 200/month

DA - 0.5 times of basic pay
EPF - 0.11 times of basic pay
TA - 900/month

input grade-level,city-class,

Amount	Tax-Rate
upto 2,50,000	0%
2,50,0000 to 5,00,000	3% above 2,50,000
5,00,001 to 7,50,000	10% above 5,00,000+12500
7,50,001 to 10,00,000	15% above 7,50,000+37
10,00,001 to 12,50,000	20% above 10,00,000+75000
12,50,001 to 15,00,000	25% above 12,50,000+1,25,000
above 15,00,0001	30% above 15,00,000+1,87,500

In [14]:
```
grade = input("ENTER GRADE-LEVEL: ")
city = input("ENTER CITY CLASS (class-1/class-2/class-3): ")

ta = 900
pt = 200
grosspay = 0
hra = 0
ap = 0
tax = 0
```

```
if grade == 'A':
    basic = 60000
    oa = 8000
elif grade == 'B':
    basic = 50000
    oa = 7000
elif grade == 'C':
    basic = 40000
    oa = 6000
elif grade == 'D':
    basic = 30000
    oa = 5000
elif grade == 'E':
    basic = 20000
    oa = 4000
elif grade == 'F':
    basic = 10000
    oa = 3000
else:
    print("INVALID GRADE")
    exit()

# DA and EPF are common
da = 0.5 * basic
epf = 0.11 * basic

# HRA depends on city
if city == "class-1":
    hra = basic * 0.3
elif city == "class-2":
    hra = basic * 0.2
elif city == "class-3":
    hra = basic * 0.1
else:
    print("ENTER VALID CLASS")
    exit()

grosspay = basic + hra + da + oa + ta - pt - epf
ap = grosspay * 12

print("GROSS PAY =", grosspay)
print("ANNUAL PAY =", ap)

# TAX CALCULATION
if ap < 250000:
    print("NO TAX")
elif ap >= 250001 and ap <= 500000:
    tax = ap * 0.03
elif ap >= 500001 and ap <= 750000:
    tax = (ap * 0.10) + 12500
elif ap >= 750001 and ap <= 1000000:
    tax = (ap * 0.15) + 37500
elif ap >= 1000001 and ap <= 1250000:
```

```
    tax = (ap * 0.20) + 75000
elif ap >= 1250001 and ap <= 1500000:
    tax = (ap * 0.25) + 125000
elif ap >= 1500001:
    tax = (ap * 0.30) + 187000
else:
    print("NOT VALID ANNUAL PAY FOUND")

print("TAX =", tax)
```

```
GROSS PAY = 87200.0
ANNUAL PAY = 1046400.0
TAX = 284280.0
```

PATTERN

1)

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

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

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

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

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

In [3]:
```
n=int(input("ENTER NUMBER"))
for i in range(1,n+1) :
    for j in range(1,i+1) :
        print(j,end=" ")
    print()
```

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

In [4]:
```
n=int(input("ENTER NUMBER "))
for i in range(1,n+1) :
    for j in range(1,i+1) :
         print(chr(64+j),end=" ")
    print()
```

```
A
A B
A B C
A B C D
A B C D E
```

In [5]:
```
n=int(input("ENTER NUMBER"))
for i in range(1,n+1) :
    for j in range(1,i+1) :
        if (i+j)%2==0 :
             print(1,end=" ")
        else :
            print(0,end=" ")
    print()
```

```
1
0 1
1 0 1
0 1 0 1
1 0 1 0 1
```

In [6]:
```
n=int(input("ENTER NUMBER"))
for i in range(1,n+1) :
    for j in range(1,i+1) :
        print((i+j-1)%2,end=" ")
    print()
```

```
1
0 1
1 0 1
0 1 0 1
1 0 1 0 1
```

In [7]:
```
n=int(input("ENTER NUMBER"))
for i in range(1,n+1) :
    for j in range(1,i+1) :
        if (i)%2==0 :
             print("#",end=" ")
        else :
            print("*",end=" ")
    print()
```

```
*
# #
* * *
# # # #
* * * * *
```

In [8]:
```
n=int(input("ENTER NUMBER"))
temp=n
for i in range(1,n+1) :
    for j in range(i,n+1) :
         print("*",end=" ")
    print()
```

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

In [9]:
```
n=int(input("ENTER NUMBER"))
temp=n
for i in range(1,n+1) :
    for j in range(i,n+1) :
         print(n+i-j,end=" ")
    print()
```

```
5 4 3 2 1
5 4 3 2
5 4 3
5 4
5
```

In [10]:
```
n=int(input("ENTER NUMBER"))
temp=n
for i in range(1,n+1) :
    for j in range(i,n+1) :
         print(j,end=" ")
    print()
```

```
1 2 3 4 5
2 3 4 5
3 4 5
4 5
5
```

In [11]:
```
n=int(input("ENTER NUMBER"))
temp=n
for i in range(1,n+1) :
    for j in range(i,n+1) :
         print(j-i+1,end=" ")
    print()
```

```
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

In [12]:
```
n=int(input("ENTER NUMBER"))
temp=n
for i in range(1,n+1) :
    for j in range(i,n+1) :
        print(" ",end="")
    for j in range(1,i+1) :
        print("*",end=" ")
    print()
```

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

In [ ]: