#Task 1

Regestration/Referral ID:DIRSS1106

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Code in Python to print the given Numaric pattern.

1.

```python
row = int(input("Enter row:"))

for i in range(row+1,0,-1):
    for j in range(0,i-1):
        print("5", end=" ")

    print(" ")
```

Enter row:5

5 5 5 5 5

5 5 5 5

5 5 5

5 5

5

2.

```python
row = int(input("Enter row:"))

for i in range(row+1,0,-1):
    for j in range(0,i-1):
        print(j, end=" ")

    print(" ")
```

Enter row:5

0 1 2 3 4

0 1 2 3

0 1 2

0 1

0

3.

```
row = int(input("Enter row:"))

for i in range(row):
    for j in range(i,-1,-1):
        print(j+1, end=" ")

    print(" ")
```

Enter row:5

1

2 1

3 2 1

4 3 2 1

5 4 3 2 1

4.

```
row = int(input("Enter row:"))
i=1
while i<=row:
    j=1
    while j<=i:
        print((i*2-1),end=" ")
        j=j+1
```

```
    i=i+1
    print(" ")
```

Enter row:5

1

3 3

5 5 5

7 7 7 7

9 9 9 9 9

5.

```
row = int(input("Enter row:"))
start=1
stop=2
current_num=stop
for i in range(2,6):
    for j in range(start,stop):
        current_num-=1
        print(current_num, end=" ")

    print(" ")
    start=stop
    stop+=i
    current_num=stop
```

Enter row:4

1

3 2

6 5 4

10 9 8 7

6.

```python
def print_pascal_traingle(size):
    for i in range(0,size):
        for j in range(0,i+1):
            print(decide_number(i,j),end=" ")
        print()

def decide_number(n,k):
    num=1
    if k>n-k:
        k=n-k
    for i in range(0,k):
        num=num*(n-i)
        num=num//(i+1)
    return num
rows=7
print_pascal_traingle(rows)
```

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

7.

```python
row=int(input("Enter row:"))
for i in range(1,row+1):
    for j in range(1,row+1):
        if j<=i:
```

```
            print(i,end=" ")
        else:
            print(j,end=" ")

    print()
```

Enter row:5

1 2 3 4 5

2 2 3 4 5

3 3 3 4 5

4 4 4 4 5

5 5 5 5 5

8.

```
row=int(input("Enter row:"))
for i in range(1,row):
    for j in range(1,i+1):
            print(i*j,end=" ")

    print()
```

Enter row:9

1

2 4

3 6 9

4 8 12 16

5 10 15 20 25

6 12 18 24 30 36

7 14 21 28 35 42 49

8 16 24 32 40 48 56 64

#Code in Python to print the given Star pattern.

9.

```python
row=int(input("Enter row:"))
k=row-2
for i in range(row,-1,-1):
    for j in range(k,0,-1):
        print(end=" ")
    k=k+1
    for j in range(0,i+1):
        print("*",end="")
    print()
```

Enter row:5

```
  ******

   *****

    ****

     ***

      **

       *
```

10.

```python
row=int(input("Enter row:"))
m=(2*row)-2
for i in range(0,row):
    for j in range(0,m):
        print(end=" ")
    m=m-1
    for j in range(0,i+1):
        print("* ",end="")
    print("")
```

Enter row:7

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

11.

```python
row=int(input("Enter row:"))
for i in range(0,row):
    for j in range(0,i+1):
        print("*",end=" ")
    print(" ")

print(" ")
for i in range(row+1,0,-1):
    for j in range(0, i - 1):
        print("* ",end=' ')
    print("")
```

Enter row:5

*

* *

* * *

* * * *

* * * * *

* * * * *

* * * *

* * *

* *

*

12.

```
row=int(input("Enter row:"))
for i in range(0,row):
    for j in range(0,i+1):
        print("*",end=" ")
    print("\r")
for i in range(row,0,-1):
    for j in range(0, i - 1):
        print("*",end=' ')
    print("\r")
```

Enter row:5

*

* *

* * *

* * * *

* * * * *

* * * *

* * *

* *

*

13.

```
row=int(input("Enter row:"))
i=1
while i <= row:
    j=i
    while j<row:
        print(' ',end=' ')
        j+=1
    k = 1
    while k<=i:
        print('*',end=' ')
        k+=1
    print()
    i+=1

i=row
while i>=1:
    j=i
    while j<=row:
        print(' ',end=' ')
        j += 1
```

```
    k=1
    while k<i:
        print('*',end=' ')
        k+=1
    print('')
    i-=1
```

Enter row:5

```
    *

   * *

  * * *

 * * * *

* * * * *

 * * * *

  * * *

   * *

    *
```

14.

```
row=int(input("Enter row:"))
k=row-2
for i in range(row,-1,-1):
    for j in range(k,0,-1):
        print(end=" ")
    k=k+1
    for j in range(0,i+1):
        print("*",end="")
    print()

k=2*row-2
for i in range(0,row+1):
    for j in range(0,k):
        print(end=" ")
    k=k-1
    for j in range(0,i+1):
```

```
        print("*",end="")
    print()
```

Enter row:5
  ******
   *****
   ****
    ***
     **
      *
      *
     **
    ***
   ****
  *****
  ******

15.

```
row=int(input("Enter row:"))
print("*"*row,end="\n")
i=(row//2)-1
j=2
while i !=0:
    while j<=(row-2):
        print("*"* i, end="")
        print("_" * j, end="")
        print("*" * i, end="\n")
        i=i-1
        j=j+2
```

Enter row:14

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

******__******

*****____*****

****_____****

***_____***

**_____**

*_____*
```