PROGRAMS OF PYTHON

#Q1:

"""x=input("find out the reverse of the string")

for i in range(len(x)-1,-1,-1):

print(x[i],end='')"""

#Q2:to check whether the substring use find or index method:

"""x=input("string")

y="stark"

n=x.find(y,0,len(x))

if n==-1:

print("not present")

else:

print("present")

print(n)"""

#Q3:Convert string from lowercase to uppercase:

"""x=input()

n=x.upper()

print(n)"""

#Q4:To find the no of times occurence of substring into a string:

"""a="Hello how are you"

ch="o"

start=0

for i in range(a.count(ch)):

z=a.index(ch,start)

print(z)

start=z+1"""

#Q5:

"""a="python1234"

print("the string is:",a)

al=""

```
for i in a:
    if(i.isdigit()==True):
        al=al+"$"
    else:
        al=al+i
print(al)"""


#Q6:
"""P=int(input("enter the principal amount"))
N=int(input("enter the number of years"))
R=int(input("enter the rate of interset"))
SI=P*N*R/100
print(SI)"""


#Q7:
"""h=int(input("no of heads"))
```

f=int(input("no of feet"))

*x=(f-2*h/2)*

*y=(-f+4*h/2)*

print(x,y)"""

#Q8:

"""lr=int(input("length of the room"))

br=int(input("breadth of the room"))

*ar=lr*br*

at=1

no_tiles=ar/at

print(no_tiles)"""

#Q9:

"""lr=int(input("length of the room"))

br=int(input("breadth of the room"))

lt=int(input("length of the tile"))

```
bt=int(input("breadth of the tile"))
ar=lr*br
at=lt*bt
no_tiles=ar/at
print(no_tiles)"""

#Q10:swipe the value of x and y:
"""x=int(input("enter the number of x"))
y=int(input("enter the number of y"))
x=x+y
y=x-y
x=x-y
print(x,y)"""

#Q11:swipe the value of x and y:
"""x=int(input("enter the number of x"))
y=int(input("enter the number of y"))
```

```
x=x^y
y=x^y
x=x^y
print(x,y)"""

#Q12:
"""x=int(input("enter the year"))
y=x%4
if y==0:
   print("year is leap")
else:
   print("year is not leap")"""

#Q13:
"""x=int(input("enter the number"))
y=x%2
if y==0:
```

```
   print("number the even")
else:
   print("number is odd")"""

#Q14:To check whether the number the is even or odd:
"""x=int(input("enter the number"))
y=x&1
print(y)"""

#Q15:Reverse th2e three digit  number:
"""x=int(input("enter the number"))
y=x%10
x=x//10
z=x%10
x=x//10
rev=y*100+z*10+x
print(rev)"""
```

```
#Q16:Palidrom:
"""x=int(input("enter the number"))
v=x
y=x%10
x=x//10
z=x%10
x=x//10
rev=y*100+z*10+x
if rev==v:
   print("the no is palidrom")
else:
   print("the no is not palidrom")"""

#Q17:Armstrong:
"""x=int(input("enter the number"))
y=x%10
```

x=x//10

z=x%10

x=x//10

*armstrong=y*y*y+z*z*z+x*x*x*

print(armstrong)"""

#Q18:Multiply the number with left shift operator:

"""x=int(input())

y=x<<2

print(y)"""

#Q19:Divide the number with right shift operator:

"""x=int(input("enter the number"))

y=x>>2

print(y)"""

#Q20:

```
"""amount=int(input())
amount=amount-100
x=amount//2000
y=(amount-x*2000)//500
z=(amount-(x*2000+y*500))//100+1
print("No of notes of 2000=" ,x)
print("No of notes of 500=" ,y)
print("No of notes of 100=" ,z)"""



#Q21:Program for Pattern printing


"""n = int(input("Enter Number of Lines  : "))


for i in range(1,n+1):
    for j in range(1,i+1):
```

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



#Q22:Program for Pattern printing

"""n = int(input("Enter Number of Lines  : "))

for i in range(1,n+1):
    print('* '*i)"""

#Q23:Program for Pattern printing
"""n = int(input("Enter Number of Lines  : "))

for i in range(1,n+1):
    for j in range(1,i+1):
```

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


#Q24:Program for Pattern printing
"""n = int(input("Enter number of rows: "))

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

#Q25:Program for Pattern printing
"""n = int(input("Enter Number of Lines  : "))

for i in range(n, 0, -1):
    print(" " * (n-i)+"*"*i)
```

```
    print()"""


#Q26:Program for Pattern printing

"""n = int(input("Enter Number of Lines  : "))

for i in range(1,n+1):
    print(" " * (n-i)+"*"*i)

    print()"""


#Q27:Program for Reverse Pattern printing
```

```
"""n = int(input("Enter Number of Lines  : "))

for i in range(1,n+1):
    print("*" *(n-i)+" "*i)"""


#Q28:Program for Pattern printing

"""n = int(input("Enter Number of Lines  : "))

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

#Q29:Program for Pattern printing

```
"""n = int(input("Enter Number of Lines  : "))

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

#Q30:Program for Pattern printing

```
"""n = int(input("Enter Number of Lines  : "))
```

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

```
#Q31:Program for Pattern printing

"""n = int(input("Enter Number of Lines  : "))

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

```
    print()"""

#Q32:Neon number
"""num=int(input("Enter the number"))
square=num**2
digit=0
while square>0:
    dig=square%10
    digit=digit+dig
    square=square//10
if (num==digit):
    print("Neon number")
else:
    print("Not a Neon number")"""

#Q33:Factorial of a number:
"""num=int(input("Enter the number"))
```

```
factorial=1
if num<0:
   print("factorial does not exits")
elif num==0:
   print("Factorial is 1")
else:
   for i in range(1,num+1):
     factorial=factorial*i
     print(factorial)"""
```

OUTPUT OF PATTERN IN PYTHON:

```
Python 3.10.5 (tags/v3.10.5:f377153, Jun  6 2022,
16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more
information.

========================== RESTART: Z:/all
```

programs.py ==========

Enter Number of Lines : 8

1

22

333

4444

55555

666666

7777777

88888888

Enter Number of Lines :

========== RESTART: Z:/all programs.py ==========

Enter Number of Lines : 6

*

* *

* * *

* * * *

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

Enter Number of Lines :

========== RESTART: Z:/all programs.py ==========

Enter Number of Lines : 9

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

Enter Number of Lines :

========== RESTART: Z:/all programs.py ==========

Enter number of rows: 5

```
* * * * *

* * * *

* * *

* *

*
```

========== RESTART: Z:/all programs.py ==========

Enter Number of Lines : 9

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

 ********

  *******

   ******
```

*****

****

***

**

*

========== RESTART: Z:/all programs.py ==========

Enter Number of Lines : 6

*

**

```
  ***


 ****


*****


******
```

```
========== RESTART: Z:/all programs.py ==========
Enter Number of Lines  : 4
***
**
*


========== RESTART: Z:/all programs.py ==========
```

Enter Number of Lines : 8

1

12

123

1234

12345

123456

1234567

12345678

========== RESTART: Z:/all programs.py ==========

Enter Number of Lines : 5

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

========== RESTART: Z:/all programs.py ==========

Enter Number of Lines : 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7

1 2 3 4 5 6

1 2 3 4 5

1 2 3 4

1 2 3

1 2

1

========== RESTART: Z:/all programs.py ==========

Enter Number of Lines : 9

1

123

12345

1234567

123456789

1234567891011

12345678910111213

1234567891011121314151617

123456789101112131415161718