Python activity--1

1.

```
n = int(input("Input a number: "))

sum_num = (n * (n + 1)) / 2

print("Sum of the first", n ,"positive integers:", sum_num)
```

output:

Input a number: 40

Sum of the first 40 positive integers: 820.0

2.

```
a = int(input("use input A: "))

b = int(input("use input B: "))

print(a+b)

print(a-b)

print(a%b)

print(a/b)

print(a*b)

print(a^b)
```

output:

use input A: 90

use input B: 180

270

-90

90

0.5

16200

238

3.

```
from math import pi

r = float(input ("Input the radius of the circle : "))

print ("The area of the circle with radius " + str(r) + " is: " + str(pi * r**2))
```

output:

Input the radius of the circle : 40

The area of the circle with radius 40.0 is: 5026.548245743669

4.

```
b = int(input("Input the base : "))

h = int(input("Input the height : "))


area = b*h/2


print("area = ", area)
```

output:

Input the base : 90

Input the height : 900

area = 40500.0

5.

```
temp = input("Input the  temperature you like to convert? (e.g., 45F, 102C etc.) : ")
degree = int(temp[:-1])
i_convention = temp[-1]

if i_convention.upper() == "C":
  result = int(round((9 * degree) / 5 + 32))
    o_convention = "Fahrenheit"
    elif i_convention.upper() == "F":
      result = int(round((degree - 32) * 5 / 9))
        o_convention = "Celsius"
        else:
          print("Input proper convention.")
            quit()
            print("The temperature in", o_convention, "is", result, "degrees.")
```

output:

Input the temperature you like to convert? (e.g., 45F, 102C etc.) : 45f

6.

```
num = int(input("Input a four digit numbers: "))
x  = num //1000
x1 = (num - x*1000)//100
```

```
x2 = (num - x*1000 - x1*100)//10

x3 = num - x*1000 - x1*100 - x2*10

print("The sum of digits in the number is", x+x1+x2+x3)
```

output:

```
Input a four digit numbers: 9087

The sum of digits in the number is 24
```

7.

```
x = int(input("Input first number: "))

y = int(input("Input second number: "))

z = int(input("Input third number: "))


a1 = min(x, y, z)

a3 = max(x, y, z)

a2 = (x + y + z) - a1 - a3

print("Numbers in sorted order: ", a1, a2, a3)
```

output:

```
Input first number: 90


Input second number: 80


Input third number: 70

Numbers in sorted order:  70 80 90
```

8.

```
days = int(input("Input days: ")) * 3600 * 24

hours = int(input("Input hours: ")) * 3600

minutes = int(input("Input minutes: ")) * 60

seconds = int(input("Input seconds: "))


time = days + hours + minutes + seconds


print("The  amounts of seconds", time)
```

output:

```
Input days: 90


Input hours: 23


Input minutes: 59


Input seconds: 8

The  amounts of seconds 7862348
```

9.

```
pi=22/7

height = float(input('Height of cylinder: '))

radian = float(input('Radius of cylinder: '))

volume = pi * radian * radian * height

sur_area = ((2*pi*radian) * height) + ((pi*radian**2)*2)

print("Volume is: ", volume)
```

```
print("Surface Area is: ", sur_area)
```

output:

height of cylinder:90

radius of cyclinder:80

volume is:1810285.7142857143

surface area is:85485.71428571429

10.

```
NAME=str(input("enter the name: "))
print("hello",NAME)
```

output:

enter the name:yash

hello yash

List:

1.

```
a = list()
while True:
   val = int(input())
   if val != 0:
            a.append(val)
    else:
             a.sort()
             for i in a:
                      print(i)
             break
```

output:

9

4

0

4

9

2.

```
num = int(input("user input: "))
mylist = []
while(num !=0):
    mylist.append(num)
    num =int(input("user input"))
mylist.reverse()
for i in mylist:
    print(i,end = '')
```

output:

user input:8

user input:7

user input:0

8 7

3.

```
Words = []
Word = (“enter a word(blank line to quit);”)
While word != “ “:
     If word      not in words:
```

```
      words.append(word)
    word = input(“enter a word(blank line to quit): “)
for word in words:
print(word)
```

output:

enter a word(blank line to quit:8

enter a word(blank line to quit)

4.

```
num = 0
tot = 0.0
while True:
number = input("Enter a number")
 if number == 'done':
 break
try :
num1 = float(number)
 except: print('Invailed Input')
continue num = num+1 tot = tot + num1
print ('all done')
print (tot,num,tot/num)
```

output:

enter a number:90

enter a number:80

170

5.

```
from   random    import    randrange


MIN_NUM  = 1

MAX_NUM  = 49

NUM_NUMS   = 6


# Use a list to store the numbers on the ticket

ticket_nums = []


# Generate NUM NUMS random but distinct numbers

for   i  in  range (NUM_NUMS):

  # Generate a number that isn't already on the ticket

  rand = randrange(MIN_NUM,        MAX_NUM    +  1)

  while    rand   in  ticket_nums:

    rand = randrange(MIN_NUM,        MAX_NUM    +  1)


  # Add the number to the ticket

  ticket_nums.append(rand)


# Sort the numbers into ascending order and display them
```

```
ticket_nums.sort()
print ("Your      numbers    are:   ",  end="")
for   n  in  ticket_nums:
   print (n,    end="    ")
print ()
```

output:

```
your numbers  are: 2 4 7 18 19 45
```