Task - 4

1] Sol:-

```
n = int(input("Input a number:"))
Sum=num = (n*(n+1))/2
Print("Sum of the first", n,
"positive integer:", Sum_num)
```

O/P:-

Input a number :- 2

Sum of the first 2 positive Integer :- 3.0

2] Sol:

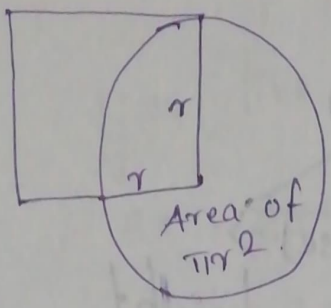
```
num1 = int(input("Enter First number:"))
num2 = int(input("Enter Second number:"))
Print("Enter which operation would you like to perform:
```

```
ch = input ("Enter any of these char
    for specific operation +, -, *, /, :")

result = 0
if ch == '+':
result = num1 + num2
elif ch == '-':
    result = num1 - num2
elif ch == '*':
    result = num1 * num2
    elif ch == '/':
    result = num1 / num2
else
    Print ("input character is not
                recognized!")
Print (num1, ch, num2, ":",
                result).
```

(3) Circle :-

Radius = πr^2.



Ex PGM:-

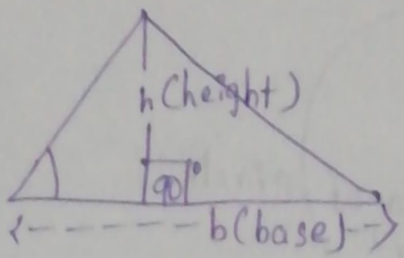
```
from math import pi
r = float (input ("Input the
radius of the Circle :"))
print ("The Area of the
Circle with radius "+ str (r) + " is :"+
str (pi * r ** 2))
```

O/P:

```
Input the radius Circle : 1.1
The area of the Circle
with radius 1.1 is : 3.8013271.....
```

(1) Sol:-

Height of triangle:-



Area $A = \frac{1}{2} \times base \times height$

$A = \frac{1}{2} \times b \times h$

Ex PGM :-

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

```
Area = b * h/2
```

```
Print ("Area =", Area)
```

O/P:-

Input the base : 20

Input the height : 40

Area :- 400.0

(5) Sol:

temperature:-

```
temp = input("Input the temperature you like Convert?)
       ex:- 45F, 102C ... etc): ")
degree = int (temp [:-1])
i_Convertion = temp [-1]
if i_Convertion.upper() == "C":
result = int (round((9* degree) /5 +32))
o_Convertion = "Fahrenheit"
elif i_Convertion.upper() == "F":
result = int (round (degree - 32) * .5/9))
o_Convertion = "Celsium"
else:
    print ("Input proper Convestion")
```

quit()

Print("The temperature in", 0, Conversion
is", result, "degrees.")

O/P:-

The temperature in Celsius
is 40 degrees.

(1) Two Digits:-

Sol:-

```
num = int(input("Enter a number:"))
result = 0
hold = num
While num > 0:
rem = num % 10
result = result + rem.
```

num int (num/10)

Print ("Sum of all digits of", hold,

"is :", result)

O/P:-

Enter a Number : -5257

Sum of all digits of 5257

is :- 19

(7) Sol:-

Min & Max

Min ([3, 5, 9, 1, -5])

-5

Min([])

(Most recent Call last)

Min() arg is an Empty

sequence.

Max([3, 5, 9, 1, -5])

9

Max([])

(Most recent Call)

Max() arg is an Empty Sequence.

O/P:

Min([3, 5.0, 9, 1.0, -5])

-5

Min([3, 5.0, 9, 1.0, -5])

9

(8) Days, hours, minutes :-

Sol:

Define ~~the~~ Constand :-

SECONDS-PER-MINUTE = 60

SECONDS-PER-HOUR = 3600

SECONDS-PER-DAY = 864000

Ready the input from user:-

days = int(input("Enter number of Days:"))

hours = int(input("Enter no. of hours:"))

minutes = int(input("Enter no. of minutes:"))

Seconds = int(input("Enter no. of Seconds:"))

Calculates days, hours, minutes & seconds:-

total_Seconds = days * Seconds_per_DAY

total_seconds = total_Seconds + (hours * seconds_per_hours)

total_Seconds = total_seconds + (minutes * Seconds_per_minute)

total_Seconds = total_Seconds + Seconds.

Print("total number of Seconds:" "%d" %(total_Seconds))

o/p:

Enter no of days :- 5

Enter no of hours :- 36

Enter no of minutes :- 21

Enter no of Seconds :- 15

- total number of seconds :- 563055

④ sol:

Cylinder Circle :-

Pi : 22/7

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

radian = float (input ('Radian of Cylinder :'))

volume = pi * radian * height

Sur. area = ((2 * pi * radian) * height + ((Pi * radian ** 2) * 2)

Print ("Volume is:", Volume)

Print ("Surface Area is:", Sur area)

o/p:

Height of cylinder : 4

Radius of cylinder : 6.

volume is : 452.5714285 7....

Surface Area is: 377.142857....

List Pbm:

(1) Sol:

```
largest = None
Smallest = None
While True:
    try:
        num = raw_input ("Enter a
                          number:")
    if num == 'done':
        break;
```

```
n = int (num)
largest = num if largest < num or
          largest == None else
Smallest = num if Smallest > num of
          Smallest == None else.
expect :
        Print ("Invaid input")
Print ("Maximum number is", largest)
Print ("Maximum number is", Smallest)
```

o/p:-

```
Invaid Input
Maximum is : 10
Minimum is : 2.
```

② Sol:-

```
def main():
    list of numbers = []
    # We use this boolean to inclicate
    that we are not clone = False.
    While not clone:
        number = int(input("Enter a number.
                 Exit with 0: "))
        if number != 0:
            list of numbers.append(number)
    else:
        clone = True.
        Sorted list = sorted(list of
        numbers, key = int, reverse = True)
        Print(sorted list)
```

```
if __name__ == '__main__':
    main()
```

(3) Sol:

```
arr[]
# Count number of
# lines in the file.
line = 1
for word in read:
    if word == '\n':
        line += 1
print("Number of lines in file is:", line)
for i in range(line)
    # readline() methods,
    # reads one line at
    # a time.
    arr.append(self.readline())
```

o/p:

number of line : 1

['Hello, I am ramya'],

(7) Sol:

num = float (input ("Enter a number :"))

if num >= 0:

if num == 0:

Print ("Zero")

else:

Print ("Positive number")

else

Print ("Negative number")

o/p:-

Enter a number : 8

Positive number

(5) Sol:-

```
Count = 0.
Sum = 0.0
num = 1
While number != 0:
number = int (input (" "))
Sum = Sum + number
Count += 1
if Count == 0:
Print ("Input Some numbers")
else:
Print ("Average and Sum of
the above numbers are:",
Sum / (Count - 1), Sum)
```

o/p:-

Input Some integers to Calculates their Sm.

15
16
12
0

Average and Sum of the above numbers are : 14.333....

(6) Sol:

```
import random
lottery_numbers=[]
for i in range(0,6):
    number = random.randint(1,50)
while number in lottery_numbers:
    number = random.randint(1,50)
lottery_numbers.append(number)
lottery_numbers.sort()
print(">>> today's lottery
    numbers are:")
```

Print (lottery Numbers)

O/P:-

Today's lottery Numbers are:

[12, 17, 19, 21, 22, 32]