**Easy**:

#1. Create a function that takes two numbers as arguments and returns their sum.

def sumOfnumbers(a,b):

    return a+b

n1=int(input("enter number"))

n2=int(input("enter number"))

result=sumOfnumbers(n1,n2)

print(result)

# 2. Write a function that takes an integer minutes and converts it to seconds.

def Min\_to\_Sec(min):

    return min\*60

n=int(input("enter minutes"))

result=Min\_to\_Sec(n)

print(result)

# 3. Create a function that takes two arguments. Both arguments are integers, a and b. Return true if one of them is 10 or if their sum is 10.

def targetsum(a,b):

    if a==10 or b==10 or a+b == 10 :

        return True

    else:

        return False

n1=int(input("enter number"))

n2=int(input("enter number"))

result=targetsum(n1,n2)

print(result)

# 4. Create a function that takes two strings as arguments and returns either true or false depending on whether the total number of characters in the first string is equal to the total number of characters in the second string.

def lenstring(str1,str2):

    if len(str1) == len(str2):

        return True

    return False

s1=input("enter string one:")

s2=input("enter string two:")

res = lenstring(s1,s2)

print(res)

# 5. Create a function that takes an array of numbers and returns the largest number.

# Example:

# secondLargest([10, 40, 30, 20, 50]) ➞ 50

def maxNumber(arr):

    max=arr[0]

    for i in range(1,len(arr)):

        if(arr[i]>max):

            max=arr[i]

    return max

n=input("enter array of number separate by space").split(" ")

res=maxNumber(n)

print(res)

# 6. Create a function that takes two strings as arguments and returns the number of times the rst

# character (the single character) is found in the second string.

# Example:

# charCount("c", "Chamber of secrets") ➞ 1

def occur(ch,str):

    count=0

    for i in str:

        if ch[0] == i:

            count+=1

    return count

ch=input("enter a character :")

st=input("enter string: ")

res=occur(ch,st)

print(res)

# 7. Create a function that takes a string and returns the number (count) of vowels contained

# within it.

# Example:# countVowels("Celebration") ➞ 5

def vowelsCount(str):

    count=0

    str=str.lower()

    print(str)

    for i in str:

        if i == 'a' or i == 'e' or i == 'i' or i == 'o' or i == 'u':

            count+=1

    return count

s=input("enter string: ")

res=vowelsCount(s)

print(res)

# 8. Given a string, create a function to reverse the string.

# Example:

# reverseCase("Happy Birthday") ➞ "yadhtriB yppaH"

def reverse(str):

    rev=""

    for i in range(len(str)-1,-1,-1):

        rev+=str[i]

    return rev

s=input("enter string: ")

res=reverse(s)

print(res)

# 9. Write a program that denes a function to multiply an integer by 2. Then, loop from 0 to a given

# integer n, passing each value to the function and printing the result.

# Input: n=5

# Output: 2 4 6 8 10

def multify(num):

    return num\*2

n=int(input("enter number:"))

res=[]

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

    res.append(multify(i))

print(res)

# 10.Program to nd greatest of three numbers

# Input: 4 8 2

# Output: 8 is greatest

def greatest(a,b,c):

    if a>b and a>c :

        return a

    elif b>c:

        return b

    else:

        return c

n1=int(input("enter number 1:"))

n2=int(input("enter number 2:"))

n3=int(input("enter number 3:"))

res=greatest(n1,n2,n3)

print(res + " is greatest")

# 11.Program to nd factorial of number.

# Input: n=5

# Output: 120

def fact(n):

    if n==1:

        return 1

    return n\*fact(n-1)

n=int(input("enter number"))

res=fact(n)

print(res)

# 12.Calculate the Power of a Number(using loop only).

# Input: n=5, p=3

# Output: 5 ^ 3 = 125

def power(n,p):

    if p == 1:

        return n

    return n\*power(n,p-1)

n=int(input("enter number:"))

p=int(input("enter power:"))

res=power(n,p)

print(res)

# 13.Program to Check Whether a Number is Prime or Not

# Input: 9

# Output: 9 is not a prime no

def prime(n):

    if n<2:

        return False

    for i in range(2,n):

        if n%i == 0:

            return False

    return True

n=int(input("enter number:"))

res=prime(n)

if res:

    print(n," is prime number")

else:

    print(n," is not a prime number")

# 14.Program to nd a missing number in rst n natural numbers

# a. Input: n=5(length of array), arr= [5,3,1,4] Output: 2 is missing

def missing(n,a):

    a=sorted(a)

    for i in range(0,n):

        if i+1 != a[i]:

            return i+1

n=int(input("enter number"))

a=[int(i) for i in input("enter array numbers space separated").split(" ")]

res=missing(n,a)

print(res,"is missing")

# 15.Program to insert an element in an array at a given index.

# Input: [1,2,3,4,5,7,8,9,10] , index=5, number = 6

# Output: [1,2,3,4,5,6,78,9,10]

def insert(arr,ind,n):

    res=[]

    for i in range(len(arr)):

        if ind == i:

            res.append(n)

        res.append(arr[i])

    return res

a=[int(i) for i in input("enter array numbers space separated").split(" ")]

ind=int(input("enter index"))

ele=int(input("enter inserted element"))

res=insert(a,ind,ele)

print(res)

# 16.Count occurrence of number:

# a. Input: [1,6,3,1,5,9,7,2,1,9,3,7,8,9,10] , no\_to\_nd=7

# b. Output: 7 present 2 times.

def count(arr,n):

    count=0

    for i in arr:

        if i == n:

            count+=1

    return count

a=[int(i) for i in input("enter array numbers space separated").split(" ")]

n=int(input("enter number to find count"))

res=count(a,n)

print(n,"present ",res,"times")

**Medium:**

# 1. Print Pattern using loop.

# 1

# 1 2

# 1 2 3

# 1 2 3 4

# 1 2 3 4 5

n=int(input("enter number: "))

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

    for j in range(1,i+1):

        print(j,end=" ")

    print()

# 2. Create a function that takes an array of arrays with numbers. Return a new (single) array with

# the largest numbers of each.

# Example:

# ndLargestNums([[4, 2, 7, 1], [20, 70, 40, 90], [1, 2, 0]]) ➞ [7, 90, 2]

def findLargestNums(arr):

    res=[]

    for i in arr:

        max=i[0]

        for j in range (1,len(i)):

            if i[j] > max:

                max=i[j]

        res.append(max)

    return res

multiarr=[]

n=int(input("enter number of arrays"))

for i in range(n):

    arr=[int(i) for i in input("enter array of numbers space saperated:").split(" ")]

    multiarr.append(arr)

res=findLargestNums(multiarr)

print(res)

# 3. Create a function that takes an array of items, removes all duplicate items and returns a new

# array in the same sequential order as the old array (minus duplicates).

# Example:

# removeDups([1, 0, 1, 0]) ➞ [1, 0]

# removeDups(["The", "big", "cat"]) ➞ ["The", "big", "cat"]

def removeDups(arr):

    uni=[]

    for i in arr:

        if i not in uni:

            uni.append(i)

    return uni

arr=input("enter array of elements space saperated:").split(" ")

res=removeDups(arr)

print(res)

# 4. Program to arrange numbers in ascending order

# a. Input: [2,3,1,5,4]

# b. Output: [1,2,3,4,5]

# c. Sort the Array using loop only(you can not use predened function).

arr=[int(i) for i in input("enter array of numbers space saperated:").split(" ")]

for i in range(len(arr)):

    for j in range(len(arr)-i-1):

        if arr[j] > arr[j+1]:

            temp=arr[j]

            arr[j]=arr[j+1]

            arr[j+1]=temp

print(arr)

# 5. Program to count vowels and consonants in a given String.

# a. Input: i am ram

# b. Output: 3 vowels 3 consonants

str=input("enter string: ")

vol=0

con=0

str=str.lower()

for i in str:

    if i == 'a' or i == 'e' or i == 'i' or i == 'o' or i == 'u':

        vol+=1

    elif i >='b' and i <='z':

        con+=1

print(vol,"vowels",con,"consonants")

# 6. Reverse a number using while Loop

# a. Input: 123

# b. Output: 321

n=int(input("enter number: "))

rev=0

while n>0:

    r=n%10

    rev=rev\*10+r

    n=n//10

print(rev)