1.

a = int(input())

b = int(input())

c = int(input())

n = [a,b,c]

print(sorted(n))

print(sorted(n, reverse = True))

2.

def factorial(n):

if n == 0 or n == 1:

return 1

else:

return n \* factorial(n - 1)

n = int(input())

print(factorial(n))

3.

n = int(input('輸入一個整數:'))

for i in range(n, 0, -1):

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

print(j, end=(" "))

print()

4.

odd = 0

even = 0

for i in range(10):

x=int(input())

if x%2 == 0:

even += 1

else:

odd += 1

print('奇數有',odd,'個')

print('偶數有',even,'個')

5.

def is\_prime(n):

for i in range(2, n):

if n % i == 0:

return False

return True

n = int(input('Input a number: '))

for i in range(2, n + 1):

i\_is\_prime = is\_prime(i)

if i\_is\_prime:

print(i)

6.

def gcd(m, n):

return m if n == 0 else gcd(n, m % n)

def lcm(m, n):

return m \* n // gcd(m, n)

m = int(input("輸入 m："))

n = int(input("輸入 n："))

print("最大公因數:", gcd(m, n))

print("最小公倍數:", lcm(m, n))

7.

import math

a = int(input())

b = int(input())

c = int(input())

def quadratic(a,b,c):

key=b\*\*2-4\*a\*c

if key>0:

x1=(-b+math.sqrt(key))/2\*a

x2=(-b-math.sqrt(key))/2\*a

if key==0:

x1=-b/2\*a

x2=x1

if key<0:

print('方程無解')

return(None,None)

return (x1,x2)

print(quadratic(a,b,c))

8.

import numpy as np

list = []

for i in range(10):

x=int(input())

list.append(x)

median = np.median(list)

average = np.mean(list)

counts = np.bincount(list)

print(list)

print('中位數為',median)

print('平均數為',average)

print('眾數為',np.argmax(counts))

9.

import numpy as np

value1=[[0]\*3 for i in range(3)]

value2=[[0]\*3 for i in range(3)]

for i in range(3):

for j in range(3):

a1=int(input())

value1[i][j]=a1

for i in range(3):

for j in range(3):

a2=int(input())

value2[i][j]=a2

A = np.array(value1)

B = np.array(value2)

print(A)

print(B)

print(A+B)

print(A.dot(B))

10.

import numpy as np

value=[[0]\*3 for i in range(3)]

for i in range(3):

for j in range(3):

a=int(input())

value[i][j]=a

A = np.array(value)

print(A)

print('最小值的索引為',np.argmin(A))

print('最大值的索引為',np.argmax(A))