2(a) Exchange of two values using third variable

a=int(input('first value:'))

b=int(input('second value:'))

c=a

a=b

b=c

print("the exchanged values are:",a,b)

Output

first value:7

second value:4

the exchanged values are: 4 7

2(b) Exchange of two values using comma operator

x=int(input('first value :'))

y=int(input('second value:'))

x,y=y,x

print("the exchanged values are:",x,y)

Output

first value :42

second value:78

the exchanged values are: 78 42

2(c)exchange of two values using arithmetic operator

a=int(input('fisrt value:'))

b=int(input('second value:'))

a=a+b

b=a-b

a=a-b

print("the exchanged values are:",a,b)

Output

fisrt value:56

second value:34

the exchanged values are: 34 56

2(c) Exchange of two values using XOR operator

a=int(input('first value:'))

b=int(input('second value:'))

a=a^b

b=a^b

a=a^b

print("the exchanged values are:",a,b)

Output

first value:88

second value:99

the exchanged values are: 99 88

2(d)circulating the list of values using in bulid functions

a=input("enter values:").split(',')

print('the original list(a),''\n','circulating the list')

for i in range(len(a)):

a.append(a[0])

a.pop(0)

print(a)

Output

enter values:12345

the original list(a),

circulating the list

['12345']

2(e) circulating the list of values using slicing operator

a=input("enter values:").split(',')

print('the original list(a),''\n','circulating the list')

for i in range(len(a)):

cir=a[1:]+[a[0]]

print(cir)

Output

enter values:67894

the original list(a),

circulating the list

['67894']

2(f) Calculate the distance between two points

import math

x1 = int(input("enter x1:"))

x2 = int(input("enter x2:"))

y1 = int(input("enter y1:"))

y2 = int(input("enter y2:"))

d = math.sqt((x2-x1)\*\*2+(y2-y1)\*\*2)

print('the distance between two points is(d)')

Output

enter x1:3

enter x2:7

enter y1:2

enter y2:8

The distance between the points is 7.2111025509

Practice problems

Arthimetic operator

a=10

b=5

print("a+b:",a+b)

print("a-b:",a-b)

print("a\*b:",a\*b)

print("a/b:",a/b)

print("a//b:",a//b)

print("a\*\*b:",a\*\*b)

OUtput

a+b: 15

a-b: 5

a\*b: 50

a/b: 2.0

a//b: 2

a\*\*b: 100000

checking Prime or not prime

n=int(input("enter a value of a:"))

i=2

for i in range (2,n):

if n%2==0:

print("the given number is not a prime")

break

else:

print("the given number is prime")

Output

Enter the value of a:5678

the given number is not a prime