1.Calculating the distance between two points

Program:

n=int(input('number of books:'))

cost=int(input('cost of one book:'))

total\_cost=n\*cost

discount=(5/100)\*total\_cost

final\_cost=total\_cost-discount

print(final\_cost)

output:

number of books:5

cost of one book:60

285.0

>>>

2.Calculate arithmetic calculation

Program:

a=int(input('enter number:'))

b=int(input('enter number:'))

print('addtion',a+b)

print('subtraction',a-b)

print('multiplication',a\*b)

print('division',a/b)

print('exponent',a\*\*b)

print('floor division',a%b)

output:

enter number:100

enter number:10

addtion 110

subtraction 90

multiplication 1000

division 10.0

exponent 100000000000000000000

floor division 0

>>>

3.Calculate fahrenheit to celsius

Program:

f=int(input('enter degree in fahrenheit:'))

c=((f-32)\*5/9)

print(c,'degree celcius')

output:

enter degree in fahrenheit:17

-8.333333333333334 degree celcius

>>>

4.Calculate Simple interest

Program:

p=int(input('enter principal amount:'))

t=int(input('enter time peroid:'))

r=int(input('enter rate of interest:'))

si=(p\*t\*r)/100

print('simple interest is:',si)

output:

enter principal amount:100000

enter time peroid:2

enter rate of interest:2

simple interest is: 4000.0

5.Check prime number

Program:

num=int(input('enter a number:'))

if num>1:

for i in range(2,int(num/2)+1):

if(num%2)==0:

print(num,'is not a prime number')

break

else:

print(num,'is not a prime number')

else:

print(num,'is not a prime number')

Output:

enter a number:7

7 is not a prime number

7 is not a prime number

6.Calculating total cost of apples

Program:

cost=50

apples=int(input('enter the number of apples:'))

total\_cost=cost\*apples

print('the total cost of apples',total\_cost)

Output:

enter the number of apples:10

the total cost of apples 500

>>>

7.Check leap year

Program:

year=int(input('enter the year:'))

if(year%4==0):

print(year,'is a leap year')

elif (year%100==0):

print(year,'is a leap year')

elif(year%400==0):

print(year,'is a leap year')

else:

print(year,'is not a leap year')

Output:

enter the year:2005

2005 is not a leap year