Python Program to Add Two Numbers getting through key board

```
# sum of two nos
num1 = int(input("Enter first no"))
num2 = int(input("Enter second no"))
# Adding the two numbers
sum = num1 + num2
# Display the sum
print('The sum of {0} and {1} is {2}'.format(num1, num2, sum))
```

```
Enter first no12
Enter second no52
The sum of 12 and 52 is 64
```

Python program to check if the input year is a leap year or not

```
# To get year (integer input) from the user
year = int(input("Enter a year: "))
if ((year % 4) == 0 and (year % 100) != 0) or ((year % 400) == 0):
  print("{0} is a leap year".format(year))
else:
  print("{0} is not a leap year".format(year))
```

```
Enter a year: 2018
2018 is not a leap year
```

Python Program to Generate a Random Number

```
# Program to generate a random number between 0 and 9
# import the random module
import random
print(random.randint(0,9))
```

```
6
```

Python Program to Convert Kilometers to Miles

```
# To take kilometers from the user, uncomment the code below
kilometers = int(input("Enter value in kilometers"))
# conversion factor
conv_fac = 0.621371
# calculate miles
miles = kilometers * conv_fac
print('%0.3f kilometers is equal to %0.3f miles' %(kilometers,miles))
```

```
def mul(a,b):
  return a*b
def div(a,b):
  return a/b
while loop == 1:
# Print what options you have
  print ("Welcome to calculator.py")
  print ("your options are:")
  print (" ")
  print("1) Addition")
  print("2) Subtraction")
  print("3) Multiplication")
  print("4) Division")
  print("5) Quit calculator.py")
  print(" ")
  try:
    choice = int(input("Choose your option:"))
  except:
    print("please enter a valid number for option")
  print(" ")
  print(" ")
  if choice == 1:
    x = int(input("Enter 1st no:"))
    y = int(input("Enter 2nd no:"))
    print("The answer is ",add(x,y))
  elif choice == 2:
    x = int(input("Enter 1st no:"))
    y = int(input("Enter 2nd no:"))
    print("The answer is ",sub(x,y))
  elif choice == 3:
    x = int(input("Enter 1st no:"))
    y = int(input("Enter 2nd no:"))
    print("answer is ",mul(x,y))
  elif choice == 4:
    x = int(input("Enter 1st no:"))
    y = int(input("Enter 2nd no:"))
    print("answer is ",div(x,y))
  elif choice == 5:
    loop = 0
  else:
    print("please choice a valid option from 1 to 5")
    choice=0
print ("Thank-you for using calculator.py!..")
```

Enter value in kilometers50

Python Program to Solve Quadratic Equation

```
# Solve the quadratic equation ax**2 + bx + c = 0
# importing complex math module
import cmath
# To take coefficient input from the users
a = float(input("Enter a:"))
b = float(input("Enter b:"))
c = float(input("Enter c:"))
# calculate the discriminant
d = (b**2) - (4*a*c)
# find two solutions
sol1 = (-b-cmath.sqrt(d))/(2*a)
sol2 = (-b+cmath.sqrt(d))/(2*a)
print("The solution are {0} and {1}".format(sol1,sol2))
```

```
Enter a:50
Enter b:62
Enter c:45
The solution are (-0.62-0.7180529228406496j) and (-0.62+0.7180529228406496j)
```

Python Program to find prime or not using function

```
def test_prime(n):
  if (n==1):
    return False
  elif (n==2):
    return True;
  else:
   for x in range(2,n):
     if(n % x==0):
       return False
   return True
no=int(input("Enter the number"))
if (test_prime(no)) is True :
  print(" {0} is a prime no".format(no))
else:
  print(" {0} is not a prime no".format(no))
```

```
Enter the number50
 50 is not a prime no
```

SIMPLE CALCULATOR

```
#----Calculator program-----
loop = 1 # 1 means loop; anything else means don&#39;t loop.
choice = 0 # This variable holds the user&#39;s choice in the menu
def add(a,b):
  return a+b
def sub(a,b):
  return a-b
```

```
Welcome to calculator.py
your options are:

1) Addition
2) Subtraction
3) Multiplication
4) Division
5) Quit calculator.py

Choose your option:1


Enter 1st no:5
Enter 2nd no:4
The answer is  9
Welcome to calculator.py
your options are:

1) Addition
2) Subtraction
3) Multiplication
4) Division
5) Quit calculator.py

Choose your option:2


Enter 1st no:5
Enter 2nd no:2
The answer is  3
Welcome to calculator.py
your options are:

1) Addition
2) Subtraction
3) Multiplication
4) Division
5) Quit calculator.py

Choose your option:3


Enter 1st no:4
Enter 2nd no:6
answer is  24
Welcome to calculator.py
your options are:

1) Addition
2) Subtraction
3) Multiplication
4) Division
5) Quit calculator.py

Choose your option:4


Enter 1st no:81
```

D1_S1_Exercise

Find the compound interest for the given p,n,r

```
3) Multiplication
```

```
3) Multiplication
4) Division
5) Quit calculator.py

Choose your option:5


Thank-you for using calculator.py!..
```