In [1]:
```
# Q1) Wap ask the user enter two numbers from keyboard
# print addition
# print subtraction
# print multiplication
# print division using f string method

n1=eval(input("enter the number1:"))
n2=eval(input("enter the number2:"))
add=n1+n2
sub=n1-n2
mul=n1*n2
div=round(n1/n2,2)
print(f"the addition of {n1} and {n2} is {add}")
print(f"the subtraction of {n1} and {n2} is {sub}")
print(f"the multiplication of {n1} and {n2} is {mul}")
print(f"the division of {n1} and {n2} is {div}")
```

```
the addition of 100 and 200.25 is 300.25
the subtraction of 100 and 200.25 is -100.25
the multiplication of 100 and 200.25 is 20025.0
the division of 100 and 200.25 is 0.5
```

In [2]:
```
n1=input('enter 1ts number')
n2=input('enter nd num')
add=eval(n1)+eval(n2)
sub=eval(n1)-eval(n2)
mul=eval(n1)*eval(n2)
div=eval(n1)/eval(n2)

print(f'the addition of{n1} and {n2} is{add}')
print(f'the subtraction of{n1} and {n2} is{sub}')
print(f'the mul of{n1} and {n2} is{mul}')
print(f'the div of{n1} and {n2} is{div}')
```

```
the addition of100 and 200 is300
the subtraction of100 and 200 is-100
the mul of100 and 200 is20000
the div of100 and 200 is0.5
```

In [3]:
```
# Q2) Ask the user enter 3 numbers and find the average of those numbers
a=eval(input("enter the first number1 ="))
b=eval(input("enter the first number2 ="))
c=eval(input("enter the first number3 ="))
avg=(a+b+c)/3
print(f"avg is :- {avg}")
```

```
avg is :- 20.0
```

In [5]:
```
n1=eval(input("enter the number="))
n2=eval(input("enter the number="))
n3=eval(input("enter the number="))
avg=round((n1+n2+n3)/3,2)
print(f'the avg of{n1},{n2},{n3} is{avg}')
```

```
the avg of11,22,56 is29.67
```

In [6]:
```
# Q3)  Ask the enter the bill
      # ask the user ho much tip percentage
      # calculate the total bill
```

```
# 1000 rs
# 10% : 100
# 1000+100

bill=eval(input("enter the bill"))
tip_per=eval(input("enter the tip in percentage:"))
tip_amount= tip_per*bill/100
total_bill=bill+tip_amount
print("the total bill is:",total_bill)
```

```
the total bill is: 1100.0
```

In [7]:
```
bill=eval(input("Enter the bill amount:  "))
tip_per=eval(input("Enter the tip percentage:  "))
tip_amount=(bill*tip_per)/100
total=bill+tip_amount
print(total)
```

```
1100.0
```

In [9]:
```
#Q4) ask the enter the weight in kgs
#    display the answer in pounds
#    1kg=2.2 pounds

weight_kg=eval(input("Enter the weight in kgs: "))
pounds=eval(input("how many pounds for 1 kg:"))
weight_pound=round(pounds*weight_kg,2)
print(f"the weight in pound is {weight_pound}")
```

```
the weight in pound is 220.0
```

In [ ]:
```
n1=eval(input("enter the number1:"))
n2=eval(input("enter the number2:"))
add=n1+n2

n1=100
n2=200
add=n1+n2
```

In [10]:
```
import random
n1=random.randint(1,100)
n2=random.randint(1,100)
add=n1+n2
print(f'the addition of {n1} and {n2} is{add}')
```

```
the addition of58 and 49 is107
```

In [11]:
```
weight_kg=eval(input("Enter the weight in kgs: "))
pounds=eval(input("how many pounds for 1 kg:"))
weight_pound=round(pound*weight_kg,2)
print(f"the weight in pound is {weight_pound}
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[11], line 3
      1 weight_kg=eval(input("Enter the weight in kgs: "))
      2 pounds=eval(input("how many pounds for 1 kg:"))
----> 3 weight_pound=round(pound*weight_kg,2)
      4 print(f"the weight in pound is {weight_pound}")

NameError: name 'pound' is not defined
```

In [13]:
```
val=100.4567
round(val,2)
```

Out[13]: 100.46

In [ ]:
```
# Print all 4 lines 2 seconds gap
import time
n1=eval(input("enter the number1:"))
n2=eval(input("enter the number2:"))
add=n1+n2
sub=n1-n2
mul=n1*n2
div=round(n1/n2,2)
print(f"the addition of {n1} and {n2} is {add}")
time.sleep(2)
print(f"the subtraction of {n1} and {n2} is {sub}")
time.sleep(2)
print(f"the multiplication of {n1} and {n2} is {mul}")
time.sleep(2)
print(f"the division of {n1} and {n2} is {div}")
```

In [ ]:
```
# wap ask the user
# calculate the area of the circle
# ask the user take radius from keyboard
# area of circle = pi*r*r
# get the pi value from math package
```

In [2]:
```
import math
pi=math.pi
radius=eval(input("enter the radius:"))
area=pi*radius*radius
area1=round(area,2)
print(f"the area of circle is {area1}")
```

```
the area of circle is 78.54
```

In [3]:
```
import math
pi=math.pi
radius=eval(input("enter the radius:"))
area=round(pi*radius*radius,2)
print(f"the area of circle is {area}")
```

```
the area of circle is 78.54
```

In [4]:
```
import math
pi=math.pi
radius=eval(input("enter the radius:"))
area=round(pi*radius**2,2)
print(f"the area of circle is {area}")
```

```
the area of circle is 78.54
```

In [ ]:
```
# WAP Ask the user take the breadth and height
# calculate area of the traingle
# Formulae: 0.5*b*h
```

In [5]:
```
breadth=eval(input("Enter the breadth of triangle:"))
height=eval(input("Enter the height of triangle:"))
```

```
area_triangle=0.5*breadth*height
print(f"The area of triangle is {area_triangle}")
```

```
The area of triangle is 100.0
```

In [6]:
```
import random
breadth = random.randint(10,100)
height = random.randint(10,100)
area = round(breadth*height /2, 2)
print(f'Area of the triangle : {area}')
```

```
Area of the triangle : 1125.0
```

- How many ways we can provide the number
- hard coded
  - a= 10
- from keyboard
  - a=eval(input())
- using random package
  - a=random.randint(1,100)

In [ ]:
```
################## M-1 ####################################
breadth=10
height=20
area_triangle=0.5*breadth*height
print(f"The area of triangle is {area_triangle}")

################## M-2#########################################
breadth=eval(input("Enter the breadth of triangle:"))
height=eval(input("Enter the height of triangle:"))
area_triangle=0.5*breadth*height
print(f"The area of triangle is {area_triangle}")

#################### M-3 ####################################
import random
breadth = random.randint(10,100)
height = random.randint(10,100)
area = round(breadth*height /2, 2)
print(f'Area of the triangle : {area}')
```

In [8]:
```
import random
start=eval(input("enter the start value:"))  # start=10
end=eval(input("enter the end value:"))      # end=100
breadth = random.randint(start,end)         # (10,100)
height = random.randint(start,end)          # (10,100)
area = round(breadth*height /2, 2)
print(f'Area of the triangle : {area}')
```

```
Area of the triangle : 2409.5
```

In [ ]:
```
# wap ask the user calculate area and perimeter of rectangle

# M-1: hard coded
# M-2: keyboard
# M-3: Random
```

```
# Formula: Perimeter 2(l+b)
# Formulae: area     l*b
```

In [10]:
```
import random
# Method 1: Hard code the length and breadth
print("================================================")
print('hardcode method starts:')
length = 14
breadth = 20
area = length * breadth
perimeter = 2 * (length + breadth)
print(f'Area of rectangle : {area}')
print(f'Perimeter of rectangle : {perimeter}')

print("================================================")
print('keyboard method starts:')
# Method 2 : Get values from the user
length = eval(input('Enter Length: '))
breadth = eval(input('Enter Breadth: '))
area = length * breadth
perimeter = 2 * (length + breadth)
print(f'Area of rectangle : {area}')
print(f'Perimeter of rectangle : {perimeter}')

print("================================================")
print('random method starts:')
#Method3: Use random values
length = random.randint(14,18)
breadth = random.randint(8,13)
area = length * breadth
perimeter = 2 * (length + breadth)
print(f'Area of rectangle : {area}')
print(f'Perimeter of rectangle : {perimeter}')
```

```
================================================
hardcode method starts:
Area of rectangle : 280
Perimeter of rectangle : 68
================================================
keyboard method starts:
Area of rectangle : 400
Perimeter of rectangle : 80
================================================
random method starts:
Area of rectangle : 182
Perimeter of rectangle : 54
```

In [ ]:
```
#wap ask the user calculate volume of the cylinder
# Formulae: pi*r*r*h

import random
import math

print("============================")
print("Using Hardcode values")
# Method 1: Hard code the length and breadth
radius = 14
height = 20
pi = math.pi
```

```
volume = round(pi * radius**2 * height,2)
print(f'volume of the cylinder : {volume}')

print("============================")
print("Enter values from keybard")
# Method 2 : Get values from the user
radius = eval(input('Enter radius : '))
height = eval(input('Enter height : '))
pi = math.pi
volume = round(pi * radius**2 * height,2)
print(f'volume of the cylinder : {volume}')

print("============================")
print("Get random values")
#Method3: Use random values
radius = random.randint(10,15)
height =  random.randint(12,15)
pi = math.pi
volume = round(pi * radius**2 * height,2)
print(f'volume of the cylinder : {volume}')
```

In [ ]:
```
**Convesation between mother daughter and condcuter**

# Daughter: hey mom
# Mom     : Hello beta
# D       : mom do you know TS govt implmented free bus ride
# Mom     : Oh wow super
# D       : Let's go to granny home

# Conductor : Where you want to go
# Conductor : show me ID card
# Mom       : we dont have any id card
# Conductor  : then you need to pay the money
# Mom        : How much per km
# Con        : 5rs ================================ v1
# Mom        : how many km
# Cond       : 100km ================================ v2
# Mom        : How much money
# Cond       : 5*100=500 ============================ v3
# D          : I have id card
# Cond       : Enjoy the free ride
```

In [11]:
```
input("Daughter:")
input("Mother:")
input("Daughter:")
```

Out[11]:
```
'hey mom'
```

In [12]:
```
a=10  # hard coded
b=20  # hard coded
c=a+b
c
```

Out[12]:
```
30
```

In [ ]:
```

```