MATH MODULE

In [1]:
```
x = sqrt(25)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Input In [1], in <cell line: 1>()
----> 1 x = sqrt(25)

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

In [2]:
```
import math
```

In [3]:
```
x = math.sqrt(25)
```

In [4]:
```
x
```

Out[4]:
```
5.0
```

In [5]:
```
x1 = math.sqrt(15)
x1
```

Out[5]:
```
3.872983346207417
```

In [6]:
```
print(math.floor(3.87)) # floor - Minimum or least value
```

```
3
```

In [8]:
```
print(math.ceil(3.87)) # ceil - Max or Highest value
```

```
4
```

In [9]:
```
print(math.pow(3,2)) # 3 to the power 2
```

```
9.0
```

In [16]:
```
print(math.pi) # these are constant
```

```
3.141592653589793
```

In [11]:
```
print(math.e) # e - epsilon values
```

```
2.718281828459045
```

In [12]:
```
m.sqrt(25)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last
t)
Input In [12], in <cell line: 1>()
----> 1 m.sqrt(25)

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

In [13]:
```
import math as m
```

In [14]:
```
m.sqrt(25)
```

Out[14]:
```
5.0
```

In [17]:
```
from math import sqrt, pow  # math has many function if you want to import
print(pow(2,3))
print(m.sqrt(10))
```

```
8.0
3.1622776601683795
```

In [18]:
```
round(pow(2,3))
```

Out[18]:
```
8
```

In [19]:
```
from math import sqrt, pow, floor, ceil
print(pow(2,3))
print(sqrt(10))
print(floor(2.3))
print(ceil(2.3))
```

```
8.0
3.1622776601683795
2
3
```

USER INPUT FUNCTION

In [20]:
```
x = input()
x
```

```
4
```

Out[20]:
```
'4'
```

In [21]:
```
y = input()
y
```

```
8
```

Out[21]:
```
'8'
```

In [25]:
```
x = input()
y = input()
z = x + y
print(z)
```

```
4
8
48
```

In [26]:
```
type(x)
```

Out[26]:
```
str
```

In [27]:
```
type(y)
```

Out[27]:
```
str
```

In [30]:
```
x1 = input('Enter the 1st number')
x1
```

```
Enter the 1st number2
```

Out[30]:
```
'2'
```

In [31]:
```
y1 = input('Enter the 1st number')
y1
```

```
Enter the 1st number4
```

Out[31]:
```
'4'
```

In [32]:
```
x1 = input('Enter the 1st number') #whenever you works in input function it
y1 = input('Enter the 2nd number') # it wont understand as arithmetic opera
z1 = x1 + y1
print(z1)
```

```
Enter the 1st number2
Enter the 2nd number4
24
```

In [33]:
```
x1 = input('User Name: ')
y1 = input('Password: ')
z1 = x1 + y1
print(z1)
```

```
User Name: Sidra
Password: Raheem
SidraRaheem
```

In [34]:
```
type(x1)
```

Out[34]:
```
str
```

In [35]:
```
type(y1)
```

Out[35]:
```
str
```

In [36]:
```
x1 = input('Enter the 1st number')
a1 = int(x1)
y1 = input('Enter the 2nd number')
b1 = int(y1)
z1 = a1 + b1
print(z1)
```

```
Enter the 1st number100
Enter the 2nd number450
550
```

In [37]:
```
x1 = input('Enter the 1st number')
a1 = int(x1)
y1 = input('Enter the 2nd number')
b1 = int(y1)
z1 = a1 + b1
print('The total sum of a1 + b1 = ', z1)
```

```
Enter the 1st number100
Enter the 2nd number450
The total sum of a1 + b1 =  550
```

In [38]:
```
x2 = int(input('Enter the 1st number'))
y2 = int(input('Enter the 2nd number'))
z2 = x2 + y2
print('The total sum is ', z2)
```

```
Enter the 1st number450
Enter the 2nd number380
The total sum is  830
```

In [39]:
```
st = input('Enter a String')
print(st)
```

```
Enter a StringHello
Hello
```

In [40]:
```
print(st[0])
```

```
H
```

In [41]:
```
print(st[1])
```

```
e
```

In [42]:
```
print(st[-1])
```

```
o
```

In [46]:
```
st = input('Enter the string ')[1]
print(st)
```

```
Enter the string Ruquia
u
```

In [1]:
```
st = input('Enter the string ')[2:5]
print(st)
```

```
Enter the string Ruquia
qui
```

In [2]:
```
result = int(input('Enter an expression'))
print(result)
```

```
Enter an expression20+40*5
```

```
---------------------------------------------------------------------------
-
ValueError                                Traceback (most recent call las
t)
Input In [2], in <cell line: 1>()
----> 1 result = int(input('Enter an expression'))
      2 print(result)

ValueError: invalid literal for int() with base 10: '20+40*5'
```

In [3]:
```
result = eval(input('enter an expression'))
print(result)
```

```
enter an expression20+40*5
220
```