import math module

https://docs.python.org/3/library/math.html

In [1]:
```
x = sqrt(25) #sqrt is inbuild function
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[1], line 1
----> 1 x = sqrt(25)

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

In [2]:
```
import math # math is module
```

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

Out[3]: 5.0

In [6]:
```
x1 = math.sqrt(16)
x1
```

Out[6]: 4.0

In [7]:
```
print(math.floor(5.7)) #floor - minimum or least value
```

```
5
```

In [8]:
```
print(math.ceil(3.6)) #floor - minimum or least value
```

```
4
```

In [9]:
```
print(math.pow(4,2))
```

```
16.0
```

In [10]:
```
print(math.pi) #these are constant
```

```
3.141592653589793
```

In [11]:
```
print(math.e) #these are constant
```

```
2.718281828459045
```

In [12]:
```
import math as m
m.sqrt(10)
```

Out[12]: 3.1622776601683795

In [13]:
```
from math import sqrt,pow # math has many function if you want to call specific fun
pow(2,3)
```

Out[13]: 8.0

In [14]:
```
round(pow(2,3))
```

Out[14]: 8

user input function in python || command line input

In [23]:
```
x = input()
y = input()
z = x + y
print(z)
```

```
12
67
```

In [24]:
```
x1 = input('Enter the 1st number') #whenevery you works in input function it always
y1 = input('Enter the 2nd number') # it wont understand as arithmetic operator
z1 = x1 + y1
print(z1)
```

```
Enter the 1st number15
Enter the 2nd number41
1541
```

In [25]:
```
type(x1)
type(y1)
```

Out[25]: str

In [26]:
```
x1 = input('Enter the 1st number') #whenevery you works in input function it always
a1 = int(x1)
y1 = input('Enter the 2nd number') # it wont understand as arithmetic operator
b1 = int(y1)
z1 = a1 + b1
print(z1)
```

```
Enter the 1st number44
Enter the 2nd number44
88
```

for the above code notice we are using many lines because fo that wasting some memory spaces as well

In [28]:
```
x2 = int(input('Enter the 1st number'))
y2 = int(input('Enter the 2nd number'))
z2 = x2 + y2
z2
```

```
Enter the 1st number87
Enter the 2nd number86
```

Out[28]: 173

lets take input from the user in char format, but we dont have char format in python

In [33]:
```
ch = input('enter a char')
print(ch)
```

```
enter a charInput
Input
```

In [34]:
```
print(ch[0])
```

```
I
```

In [35]:
```
print(ch[1])
```

```
n
```

In [36]:
```
print(ch[-1])
```

```
t
```

In [37]:
```
ch = input('enter a char')[0]
print(ch)
```

```
S
```

In [38]:
```
ch = input('enter a char')[1:3]
print(ch)
```

```
in
```

In [39]:
```
ch = input('enter a char')
print(ch) # if you enter as 2 + 6 -1 we get output as 2 + 6-1 only
```

```
nit
```

EVAL function using input

In [42]:
```
result = eval(input('enter an expr'))
print(result)
```

```
-89
```

In [43]:
```
result = eval(input('enter an expr:'))
print(result)
```

```
23
```

In [ ]:
```

```