import math module

In [1]:
```
a=sqrt(36)  # sqrt is inbuilt function
a
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[1], line 1
----> 1 a=sqrt(36)
      2 a

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

In [2]:
```
import math   # math is a module
a=math.sqrt(36)
a
```

Out[2]: 6.0

In [3]:
```
print(math.sqrt(25))
print(math.sqrt(64))
```

```
5.0
8.0
```

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

```
256.0
```

In [5]:
```
print(math.floor(3.9)) # floor-gives small value
```

```
3
```

In [6]:
```
print(math.ceil(3.9)) # ceil-gives large value
```

```
4
```

In [7]:
```
print(math.pi)
```

```
3.141592653589793
```

In [8]:
```
import math as m
```

In [9]:
```
print(m.e)
```

```
2.718281828459045
```

In [10]:
```
print(m.pow(2,2))
```

```
4.0
```

In [11]:
```
round(pow(2,2))
```

Out[11]: 4

In [14]:
```
from math import pow,sqrt,cbrt,remainder  # from-for multiple line function declara
print(pow(3,3))
print(sqrt(81))
print(cbrt(2))
print(remainder(2,4))
```

```
27.0
9.0
1.259921049894873
2.0
```

In [15]:
```
print(round(pow(3,3)))
print(round(sqrt(81)))
print(round(cbrt(2)))
print(round(remainder(2,4)))
```

```
27
9
1
2
```

In [22]:
```
from math import*
```

In [21]:
```
print(ceil(4.9))
print(exp(3))
print(log10(2))
print(cos(2))
```

```
5
20.085536923187668
0.3010299956639812
-0.4161468365471424
```

input() function

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

```
12
```

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

Out[26]: str

In [28]:
```
type(y)
```

Out[28]: str

In [29]:
```
x1=input('enter 1st value')
y1=input('enter 2nd value')
x1+y1
```

Out[29]: '23'

In [30]:
```
x1=int(input('enter 1st value'))  # using type casting- strng to int
y1=int(input('enter 2nd value'))
x1+y1
```

Out[30]: 5

In [31]:
```
x1=float(input('enter 1st value'))  # using type casting- strng to float
y1=float(input('enter 2nd value'))
x1+y1
```

Out[31]: 5.0

In [32]:
```
x2=input('enter a char')
x2
```

Out[32]: 'Name'

In [34]:
```
print (x2[3])
```

```
e
```

In [35]:
```
print(x2[0:3])
```

```
Nam
```

In [38]:
```
x2=input('enter a char') [3] # using indexing
x2
```

Out[38]: 'e'

In [40]:
```
x2=input('enter a char') [:3]
x2
```

Out[40]: 'Nam'

In [41]:
```
x3=input()
x3
```

Out[41]: '1+2*3-4'

In [42]:
```
x3=eval(input()) # using evaluation
x3
```

Out[42]: 3

In [ ]: