Mathematical functions in Python.

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- Math functions in python refer to a set of pre-defined functions provided by the math module, which allows users to perform mathematical operations.

* Sqrt () function

- It returns the square root of a number
- Real time eg - Distance calculation.

Code
```
x = math.sqrt (15)

x
```

o/p:- 3.872983334620741 7

* Floor () function

- Returns the number which is less than or Equal
- Real time eg - Rounding down price.

Code:- print (math. floor (3.9))

o/p:- 3

* ceil () function.

  • Returns the number, which is greater than or equal to x

  • Real-time eg - Rounding up Delivery time.

  code - print (math. ceil (4.9))

            o/p : 5

* Pow () function

  • Returns the 'x' raised to the power (x,y).

  • Real time eg - used in finance to calculate compound interest.

  code - print (math. pow (2,3))

            o/p = 8.0

* round () function.

  • Return the value of 'x' - rounded to 'n' decimal. places. If 'n' is not specified, It rounds to the nearest integer.

  • Real -Time Eg: used to round prices.

Code - round (pow(2,3))

o/p :- 8.

Math functions with Constant values - doesn't vary

i) pi- (u) ; Which gives the mathematical constant

ii) e ; which gives the euler's number.

Code - print (math. pi)

o/p = 3.14159 2653589793

code - print (math. e)

o/p = 2.718281828459045

—x—

Input () function.

- A built-in function in python used for user input. It allows you to take data from the user. as a string. (eg. text, numbers).

code -
```
x = input()
y = input()
z = x + y
print (z).
```

inpd 1 : 3
inpd 2 : 6

o/p : 56.

o/p

eval() function.

- A built-in python function that evaluates and runs a string as a python expression.

code -
```
result = eval (input ('enter an exp'))
print (result)
```

input : 2 + 3 + 4 + 5

o/p : 14

For better understanding prefer Jupyter file in Git.