

Math

Built in mathematics Function

abs

```
x = 6  
print(abs(x))
```

6

```
y = -7  
print(abs(y))
```

7

```
print(abs(4.5))
```

4.5

```
print(abs(-45.6))
```

45.6

```
10 ** 0
```

1

```
1278391873 ** 0
```

1

```
(12345 % 10)
```

5

Max, Min

```
print(max(1, 4))
```

4

```
print(max(10, 11))
```

11

```
print(max(909, 100, 908))
```

909

```
print(max(909, 100, 909))
```

909

```
print(min(3, 5))
```

3

```
print(min(-1, -3))
```

-3

Sum

```
print(sum(range(1, 101)))
```

5050

```
print(sum(range(1, 11)))
```

55

```
print(sum(range(1, 10)))
```

45

```
print(list(range(1, 10)))
```

[1, 2, 3, 4, 5, 6, 7, 8, 9]

```
print(list(range(1, 11)))  
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

```
print(list(range(1,11)))  
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

log function
import a library

```
import math  
print(math.log(4))  
1.3862943611198906  
print(math.log2(4))  
2.0  
print(math.log2(16))  
4.0  
print(int(math.log2(15)))  
3  
print(int(math.log2(1054)))  
10  
print(int(math.log2(5897)))  
12  
print(int(math.log3(9)))
```

```
-----  
-----  
AttributeError                                Traceback (most recent call  
last)  
/var/folders/zn/hkv6562d6_d30glfs8yc76900000gn/T/ipykernel_9853/346814  
8402.py in <module>  
----> 1 print(int(math.log3(9)))
```

AttributeError: module 'math' has no attribute 'log3'

```
dir(math)
```

```
['_doc_',  
 '_file_',  
 '_loader_',  
 '_name_',  
 '_package_',  
 '_spec_',  
 'acos',  
 'acosh',  
 'asin',  
 'asinh',  
 'atan',  
 'atan2',  
 'atanh',  
 'ceil',  
 'comb',  
 'copysign',  
 'cos',  
 'cosh',  
 'degrees',  
 'dist',  
 'e',  
 'erf',  
 'erfc',  
 'exp',  
 'expm1',  
 'fabs',  
 'factorial',  
 'floor',  
 'fmod',  
 'frexp',  
 'fsum',  
 'gamma',  
 'gcd',  
 'hypot',  
 'inf',  
 'isclose',  
 'isfinite',  
 'isinf',  
 'isnan',  
 'isqrt',  
 'lcm',  
 'ldexp',  
 'lgamma',  
 'log',
```

```
'log10',  
'log1p',  
'log2',  
'modf',  
'nan',  
'nextafter',  
'perm',  
'pi',  
'pow',  
'prod',  
'radians',  
'remainder',  
'sin',  
'sinh',  
'sqrt',  
'tan',  
'tanh',  
'tau',  
'trunc',  
'ulp']
```