

14. Math & Random Libraries

Introduction:

```
>>> import math
>>> dir(math)
['__class__', '__name__', 'pow', '__dict__', 'acos', 'acosh', 'asin',
'asinh', 'atan', 'atan2', 'atanh', 'ceil', 'copysign', 'cos', 'cosh',
'degrees', 'e', 'erf', 'erfc', 'exp', 'expm1', 'fabs', 'factorial', 'floor',
'fmod', 'frexp', 'gamma', 'inf', 'isclose', 'isfinite', 'isinf', 'isnan',
'ldexp', 'lgamma', 'log', 'log10', 'log2', 'modf', 'nan', 'pi', 'radians',
'sin', 'sinh', 'sqrt', 'tan', 'tanh', 'tau', 'trunc']

>>> import random
>>> dir(random)
['__class__', '__init__', '__name__', '__dict__', 'choice', 'getrandbits',
'randint', 'random', 'randrange', 'seed', 'uniform']
```

Subroutines

Return Statements

Thonny Shell (Python)

```
>>> A = 'Hello'
>>> A
'Hello'

>>> B = 2*A
'HelloHello'

>>> A = [1, 2]
>>> A
[1, 2]

>>> B = 2*A
>>> B
[1, 2, 1, 2]

>>> C = A*A
Error - unsupported file type
```

