Python 3.2.5 (default, May 15 2013, 23:06:03) [MSC v.1500 32 bit (Intel)] on win32

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>>> import math

>>> dir(math)

['\_\_doc\_\_', '\_\_name\_\_', '\_\_package\_\_', 'acos', 'acosh', 'asin', 'asinh', 'atan', 'atan2', 'atanh', 'ceil', 'copysign', 'cos', 'cosh', 'degrees', 'e', 'erf', 'erfc', 'exp', 'expm1', 'fabs', 'factorial', 'floor', 'fmod', 'frexp', 'fsum', 'gamma', 'hypot', 'isfinite', 'isinf', 'isnan', 'ldexp', 'lgamma', 'log', 'log10', 'log1p', 'modf', 'pi', 'pow', 'radians', 'sin', 'sinh', 'sqrt', 'tan', 'tanh', 'trunc']

>>> help(math.log)

Help on built-in function log in module math:

log(...)

log(x[, base])

Return the logarithm of x to the given base.

If the base not specified, returns the natural logarithm (base e) of x.

>>> math.log(1024, 2)

10.0

>>> math.log(1024)

6.931471805599453

>>> math.log10(1024)

3.010299956639812

>>> import math

>>> 'andrew'

'andrew'

>>> 'andrew' + 'bloomberg'

'andrewbloomberg'

>>> fullName = 'Andrew' + 'Bloomberg'

>>> fullName

'AndrewBloomberg'

>>> fullName \* 2

'AndrewBloombergAndrewBloomberg'

>>> fullName \* 10

'AndrewBloombergAndrewBloombergAndrewBloombergAndrewBloombergAndrewBloombergAndrewBloombergAndrewBloombergAndrewBloombergAndrewBloombergAndrewBloomberg'

>>> fullName[0]

'A'

>>> fullName[1]

'n'

>>> fullName[len(fullName) - 1]

'g'

>>> fullName[-1]

'g'

>>> fullName[-2]

'r'

>>> fullName[100]

Traceback (most recent call last):

File "<pyshell#21>", line 1, in <module>

fullName[100]

IndexError: string index out of range

>>> for x in [4,6,7,8,9]:

x

4

6

7

8

9

>>> for x in [4,6,7,8,9]:

x \* 2

8

12

14

16

18

>>> for x in [4,6,7,8,9]:

x \*\* 2

16

36

49

64

81

>>> for x in [4,6,7,8,9]:

math.sqrt(x)

2.0

2.449489742783178

2.6457513110645907

2.8284271247461903

3.0

>>> for x in range(20):

x, math.sqrt(x)

(0, 0.0)

(1, 1.0)

(2, 1.4142135623730951)

(3, 1.7320508075688772)

(4, 2.0)

(5, 2.23606797749979)

(6, 2.449489742783178)

(7, 2.6457513110645907)

(8, 2.8284271247461903)

(9, 3.0)

(10, 3.1622776601683795)

(11, 3.3166247903554)

(12, 3.4641016151377544)

(13, 3.605551275463989)

(14, 3.7416573867739413)

(15, 3.872983346207417)

(16, 4.0)

(17, 4.123105625617661)

(18, 4.242640687119285)

(19, 4.358898943540674)

>>> for x in range(1, 21):

x, math.sqrt(x)

(1, 1.0)

(2, 1.4142135623730951)

(3, 1.7320508075688772)

(4, 2.0)

(5, 2.23606797749979)

(6, 2.449489742783178)

(7, 2.6457513110645907)

(8, 2.8284271247461903)

(9, 3.0)

(10, 3.1622776601683795)

(11, 3.3166247903554)

(12, 3.4641016151377544)

(13, 3.605551275463989)

(14, 3.7416573867739413)

(15, 3.872983346207417)

(16, 4.0)

(17, 4.123105625617661)

(18, 4.242640687119285)

(19, 4.358898943540674)

(20, 4.47213595499958)

>>> fullName

'AndrewBloomberg'

>>> for letter in fullName:

letter

'A'

'n'

'd'

'r'

'e'

'w'

'B'

'l'

'o'

'o'

'm'

'b'

'e'

'r'

'g'

>>> for letter in fullName:

'Gimme a ' + letter

'Gimme a A'

'Gimme a n'

'Gimme a d'

'Gimme a r'

'Gimme a e'

'Gimme a w'

'Gimme a B'

'Gimme a l'

'Gimme a o'

'Gimme a o'

'Gimme a m'

'Gimme a b'

'Gimme a e'

'Gimme a r'

'Gimme a g'

>>> for letter in fullName:

'Gimme a ' + letter + '!'

'Gimme a A!'

'Gimme a n!'

'Gimme a d!'

'Gimme a r!'

'Gimme a e!'

'Gimme a w!'

'Gimme a B!'

'Gimme a l!'

'Gimme a o!'

'Gimme a o!'

'Gimme a m!'

'Gimme a b!'

'Gimme a e!'

'Gimme a r!'

'Gimme a g!'

>>> 'a' in fullName

False

>>> 'A' in fullName

True

>>> for letter in fullName:

if letter in 'aeiouyAEIOU':

'gimme an ' + letter + '!'

else:

'gimme a ' + letter + '!'

'gimme an A!'

'gimme a n!'

'gimme a d!'

'gimme a r!'

'gimme an e!'

'gimme a w!'

'gimme a B!'

'gimme a l!'

'gimme an o!'

'gimme an o!'

'gimme a m!'

'gimme a b!'

'gimme an e!'

'gimme a r!'

'gimme a g!'

>>> for letter in fullName:

if letter in 'aeiouyAEIOU':

'gimme an ' + letter + '!'

elif letter == 'B':

'gimme lots of ' + letter + '!'

else:

'gimme a ' + letter + '!'

'gimme an A!'

'gimme a n!'

'gimme a d!'

'gimme a r!'

'gimme an e!'

'gimme a w!'

'gimme lots of B!'

'gimme a l!'

'gimme an o!'

'gimme an o!'

'gimme a m!'

'gimme a b!'

'gimme an e!'

'gimme a r!'

'gimme a g!'

>>>