

Lecture 3: Numbers, Strings, and Variables

Numbers and their operations

```
>>> x = int(45)
>>> y = 9
>>> x / y
5.0
>>> x // y
5
>>> z = float(9)
>>> x / z
5.0
>>> z * x
405.0
>>> y * x
405
>>> u = 9.0
>>> x / u
5.0

>>> y**2
81
>>> y % 3
0
>>> y % 2
1
>>> y % 5
4

>>> a = complex(1,0)
>>> b = complex(0,1)
>>> a+b
(1+1j)
>>> a*b
1j
>>> 1j**2
(-1+0j)
>>> 1j**2 + 1.0
0j
```

Strings

```
1 >>> x = "Brent's sister's husband's brother-in-law is a great guy."
2 >>> x
3 "Brent's sister's husband's brother-in-law is a great guy."
4 >>> y = 'Brent says, "Good thing my brother-in-law is an only child."'
5 >>> y
6 'Brent says, "Good thing my brother-in-law is an only child."'
7 >>> z = x + " " + y
8 >>> z
9 'Brent\'s sister\'s husband\'s brother-in-law is a great guy. Brent says, "Good thing my brother-in-law is an only child."'
10 >>> print(x)
11 Brent's sister's husband's brother-in-law is a great guy.
12 >>> print(y)
13 Brent says, "Good thing my brother-in-law is an only child."
14 >>> print(z)
15 Brent's sister's husband's brother-in-law is a great guy. Brent says, "Good thing my brother-in-law is an only child."
16 >>> a = "a newline\ncharacter"
17 >>> print(a)
18 a newline
19 character
20 >>> a = r'a newline\ncharacter'
21 >>> a
22 'a newline\ncharacter'
23 >>> print(a)
24 a newline\ncharacter
```

Question: what is the string assigned to x ?

```
>>> print(x)
She said, "Brent's favorite character is \n."
He said, "I know."
```