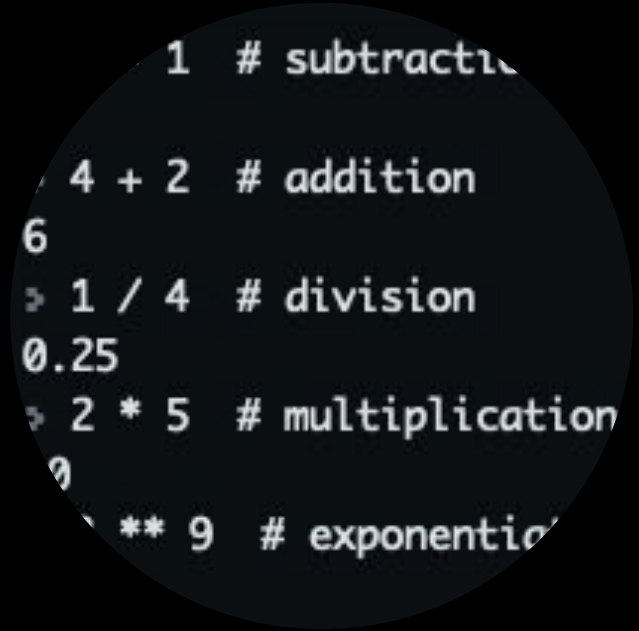
Python Curriculum

Part 01 - Immediate Applications

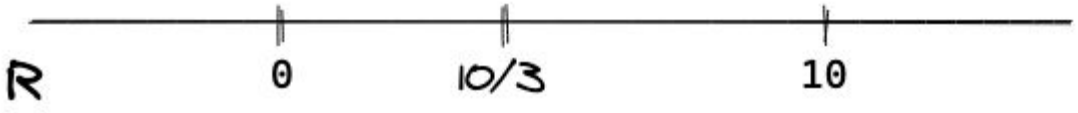
Arithmetics



First Intimidation - Floating-Point Numbers


```
>>> 10 / 3
3.3333333333333335
```

First Intimidation - Floating-Point Numbers



Text Processing

```
>>> 'make puppies great again! 🐶'.upper()
'MAKE PUPPIES GREAT AGAIN! 🐶'
```


0 2 4 6 8 10 12 14 16 18 20 22 24 26
make puppies great again!
1 3 5 7 9 11 13 15 17 19 21 23 25

Type Casting

```
>>> type('make puppies great again! 🐶')
<class 'str'>
```

```
>>> type(1)
<class 'int'>

>>> type(9 / 4)
<class 'float'>
```

```
>>> str(9)
'9'

>>> type(str(9))  # verify the type
<class 'str'>
```

Taketh

```
>>> str(9) / 4
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
TypeError: unsupported operand type(s) for /: 'str' and 'int'
```

```
>>> 4 + str(9)
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
TypeError: unsupported operand type(s) for +: 'int' and 'str'

>>> str(9) - 4
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
TypeError: unsupported operand type(s) for -: 'str' and 'int'
```

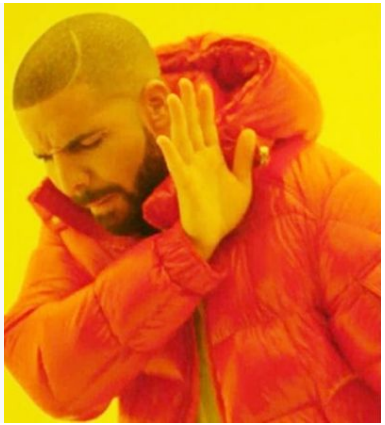
Giveth

```
>>> str(9) * 9
'999999999'
```

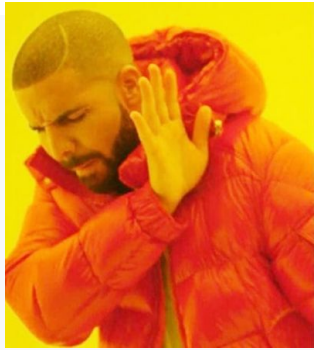
```
>>> 'I WILL NOT INSTIGATE REVOLUTION' * 18
```

First Reusability - Variables and Functions

```
>>> str((16 + 12345) % 24).zfill(2) + ':00'  # 12345 hours from 16:00 is
'01:00'

>>> str((1 + 54321) % 24).zfill(2) + ':00'  # 12345 hours from 01:00 is
'10:00'

>>> str((10 + 1234) % 24).zfill(2) + ':00'  # 1234 hours from 10:00 is
'20:00'

...
```

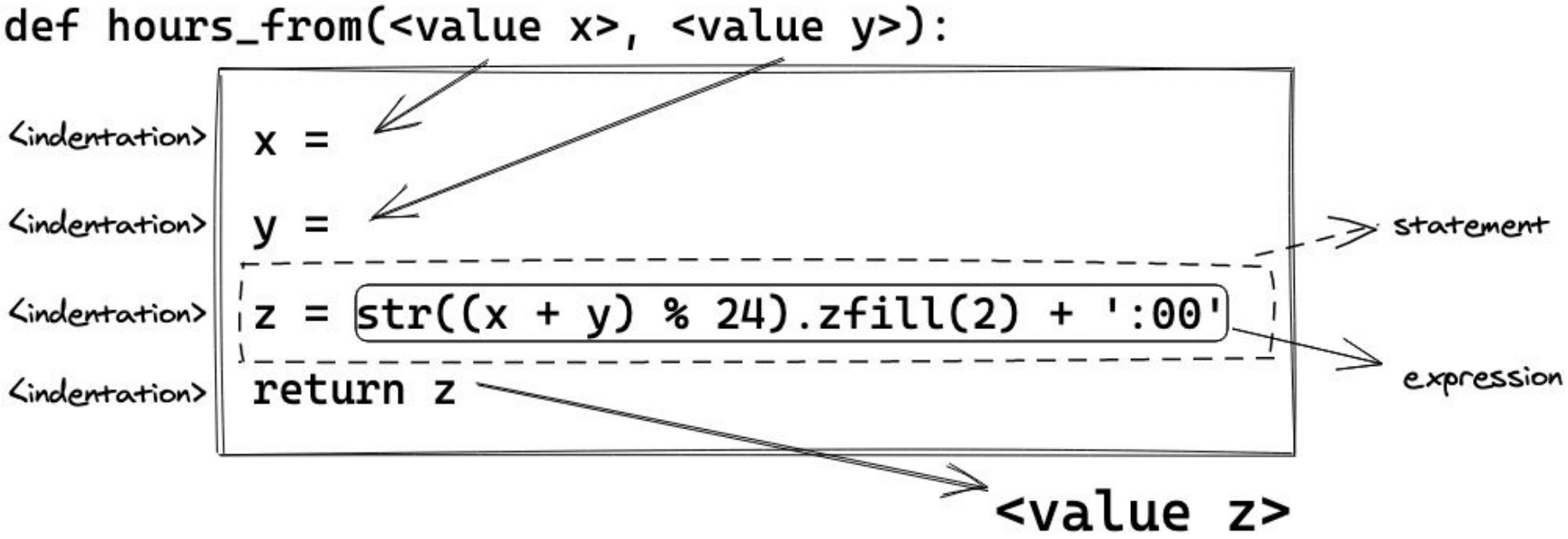


```
>>> str((x + y) % 24).zfill(2) + ':00'  # y hours from x is
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'x' is not defined
```



```
>>> x = 14  # assign 14 to variable x (to represent hour 14:00)
>>> y = 111222  # assign 111222 to variable y
>>> str((x + y) % 24).zfill(2) + ':00'  # 111222 hours from 14:00 is
'20:00'
>>> x = 12  # assign 12 to variable x
>>> str((x + y) % 24).zfill(2) + ':00'  # 111222 hours from 12:00 is
'18:00'
>>> y = 222111  # assign 222111 to variable y
>>> str((x + y) % 24).zfill(2) + ':00'  # 222111 hours from 12:00 is
'03:00'
```

```
>>> def hours_from(x, y):
...     z = str((x + y) % 24).zfill(2) + ':00'
...     return z
...
>>> hours_from(x = 12, y = 12345)
'21:00'
>>> hours_from(4, 54321)
'13:00'
```


def hours_from(<value x>, <value y>):
<indentation>
x =
<indentation>
y =
<indentation>
z = str((x + y) % 24).zfill(2) + ':00'
<indentation>
return z
statement
expression
<value z>


x
y
y hours_from x
z


Questions?