

Python Curriculum

Part 01 - Immediate Applications (2/2)

Text Processing (continued)

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 Layer of Abstraction - 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'
```

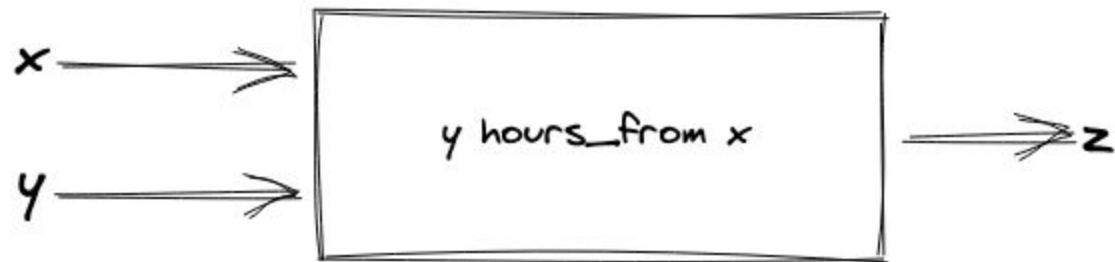
<indentation>

```
return z
```

statement

expression

<value z>





Questions?