RETURN AND PRINT

An Introduction to Computer Science

Returning and Printing

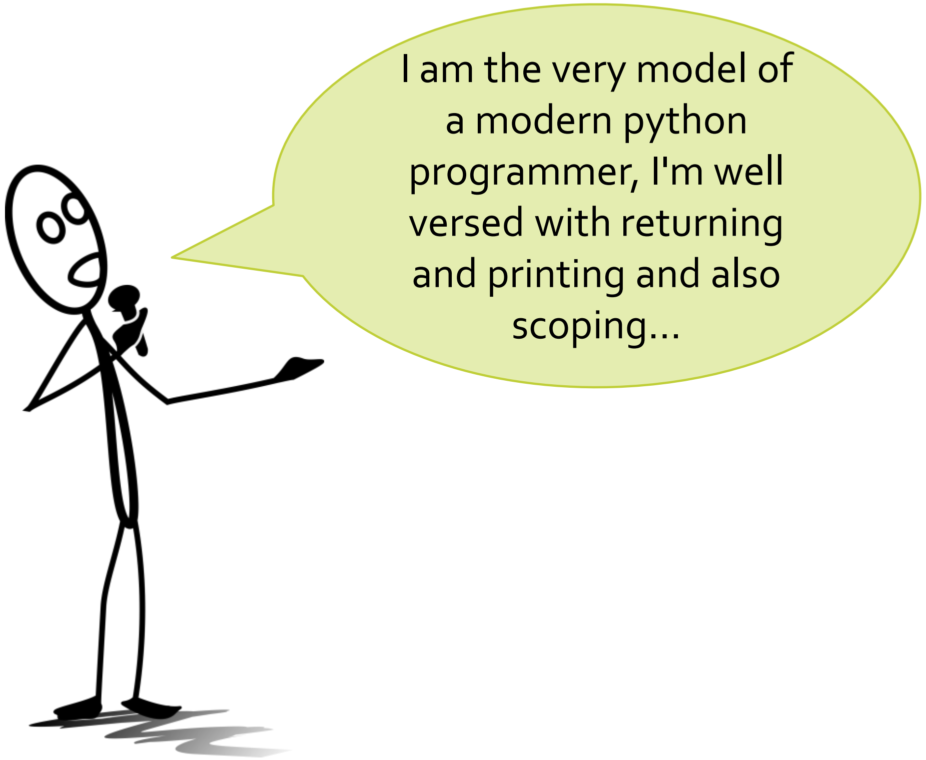
- Printing: Putting things on the console

vs.

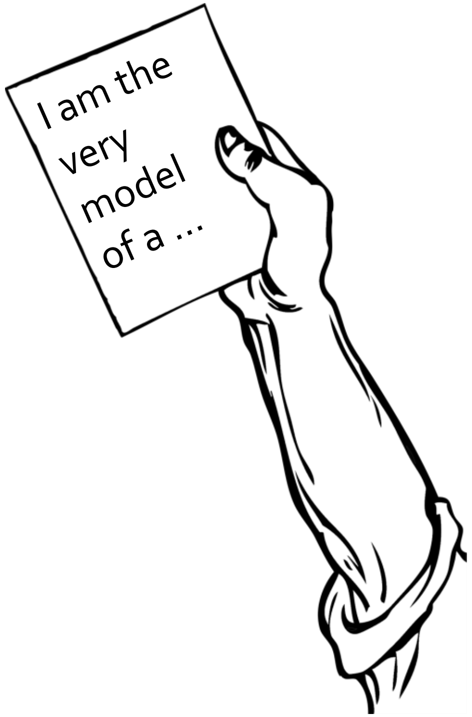
- Returning: Substitute calling expression with a value

Metaphor

Print

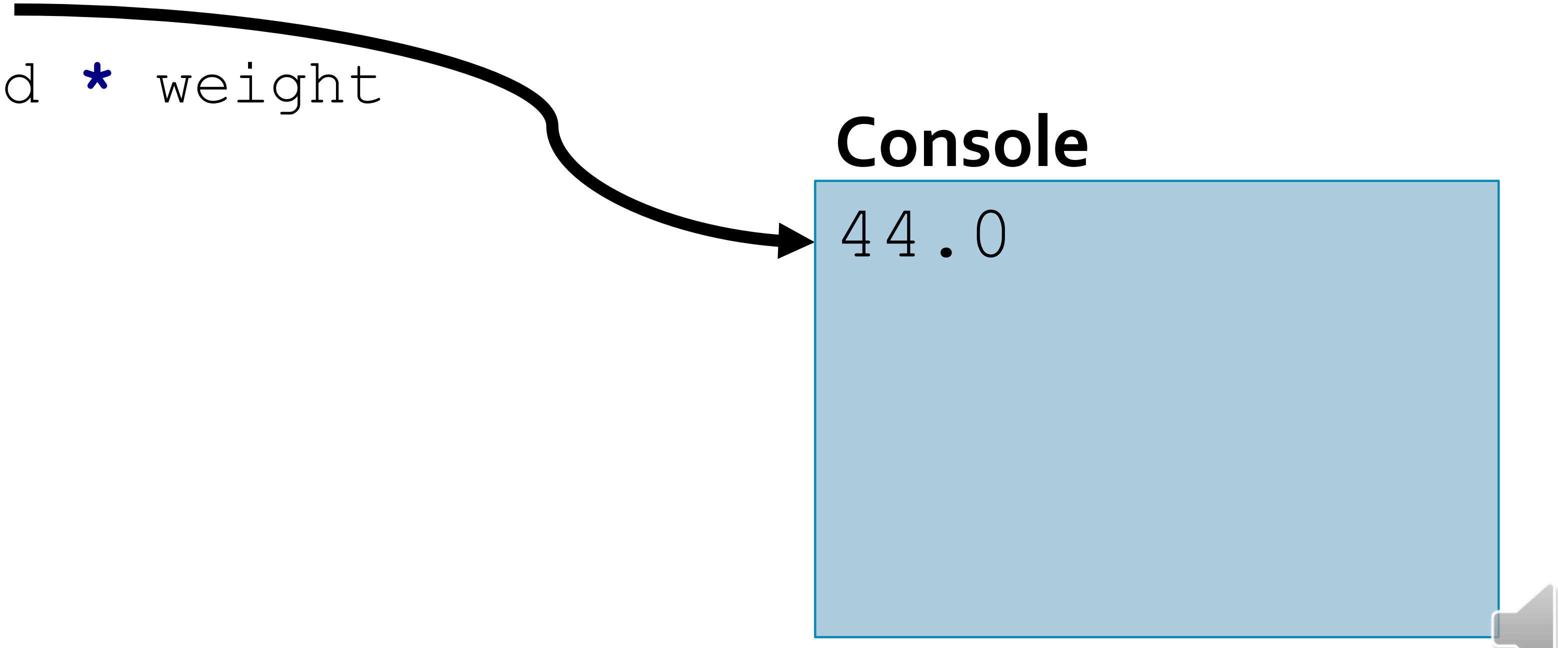

I am the very model of a modern python programmer, I'm well versed with returning and printing and also scoping…

Return



Printing

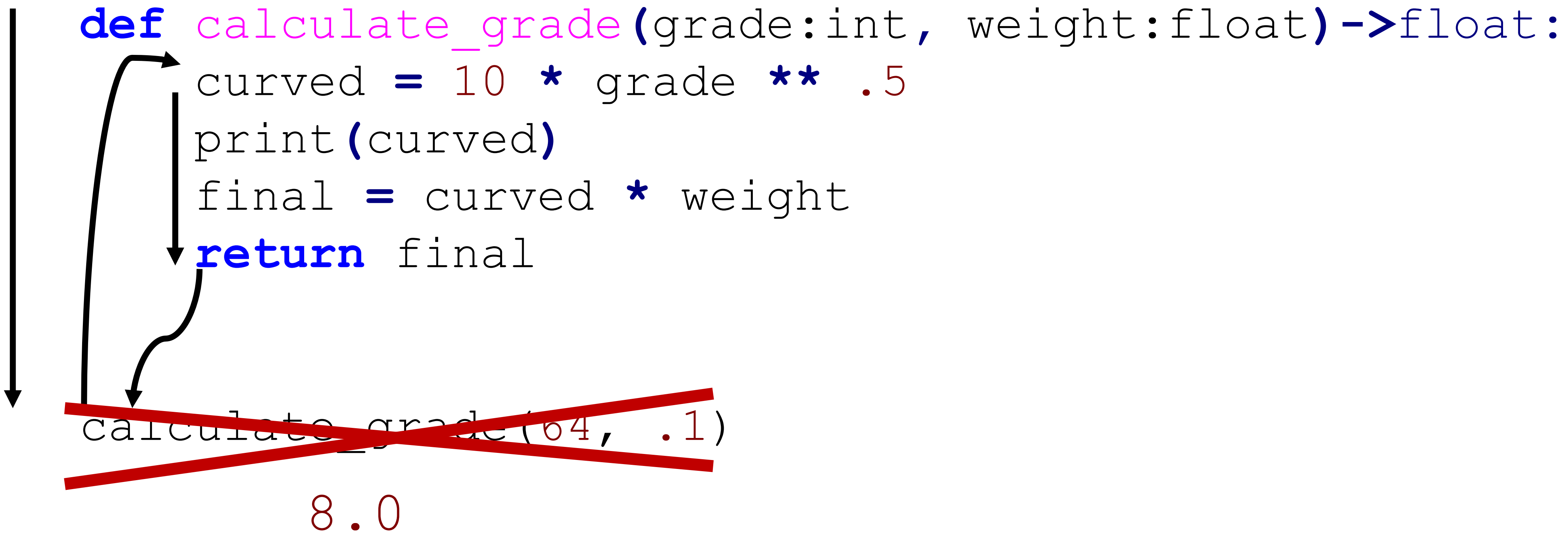
```python
def calculate_grade(grade:int, weight:float)->float:
    curved = 100 * grade ** .5
    print(curved)
    final = curved * weight
    return final
```



Console

```
44.0
```

Returning



```
def calculate_grade(grade:int, weight:float)->float:
    curved = 10 * grade ** .5
    print(curved)
    final = curved * weight
    return final
```

~~calculate_grade(64, .1)~~

8.0

Printing without Explicit Return

```
def calculate_grade(grade:int, weight:float)->float:
    curved = 10 * grade ** .5
    final = curved * weight
    print(final)

final_grade = calculate_grade(64, .1)
```

`final_grade` will be **None**

Syntax

Printing

```
print("Hello World")
```

Needs parentheses

Returning

```
return "A value"
```

No parentheses

When to Return

Write a function that consumes a string and **produces** that string backwards.

Return!

When to Print

Write a function that consumes a string and prints it out backwards

Print!

Write a function that consumes a string and produces that string backwards; then print the result of calling the function

Call, Return, Print