What is the output when this program is executed?

```
a = 24 : b = 2 : c = 3
if a / c == b ^ c then
        b = b * c
end if
if c + a / b > b then
        a = a - b * c
end if
b = b + a / 3
if b > a + c then
        b = 2 * b
else
        c = a / c
end if
output a + b / c ^ 2.
```

Warmup

Open a new file and try coding this problem (don't delete it - we will use it again later).

Day 2:
Python Intro

1 Functions/Methods

```
1  print("Hi Joon!")
2  print("Hi Bob!")
3  print("Hi Alice!")
4  print("Hi Joe!")
5  print("Hi Samantha!")
6  ...
```

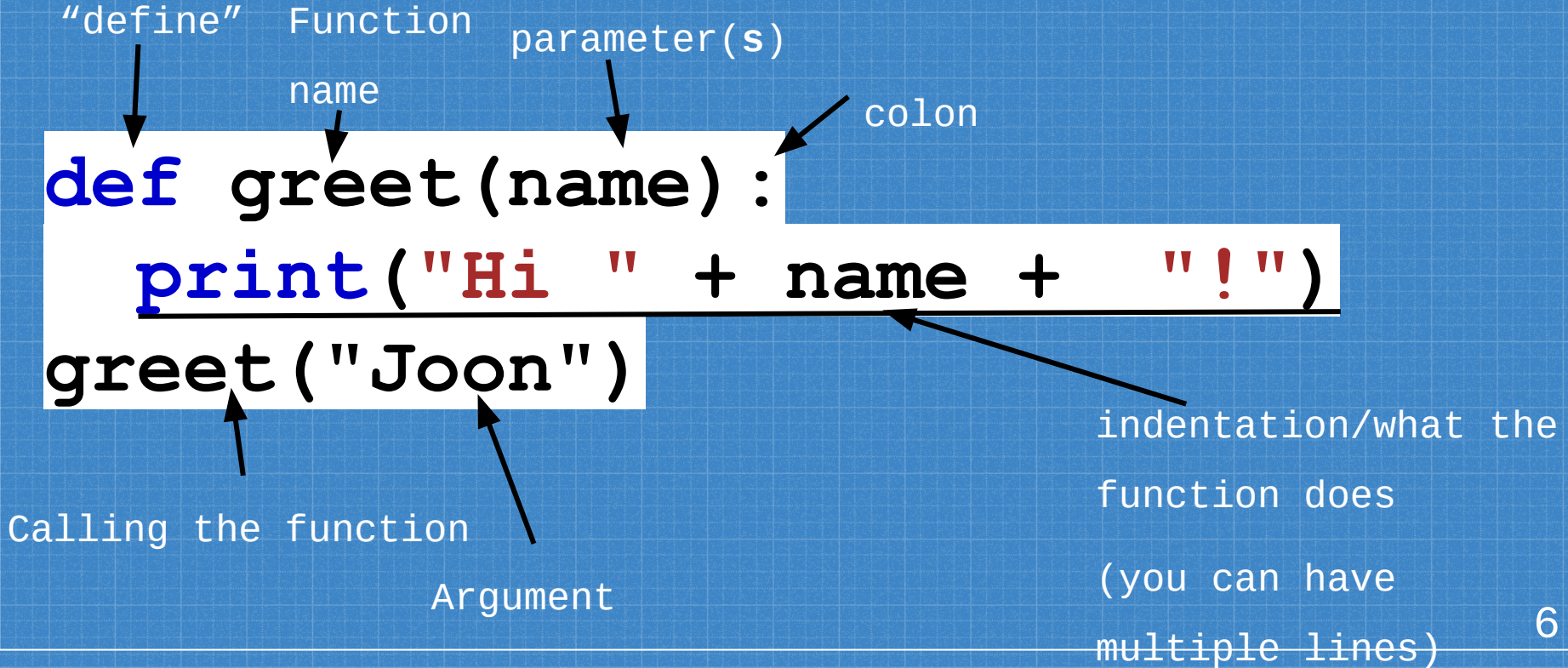
This is repetitive.

How can we make this shorter?

Why use functions?

- Reusable
- Code is more organized
- E.x - Calculator:
  - Function for +, -, *, /

How to use functions



Let’s try it

- Make a function so that it will return the correct answer to the warmup problem for any value of a, b, c.
- Use ctrl + c to copy your code and ctrl + v to paste (indentation matters)

Return Statement

- Sometimes, we want to use the result of the function without printing it
  - We use “return” to output the result of the function

```
1 def isTen(num):
2     if num == 10:
3         return True
4     else:
5         return False
6 result1 = isTen(15)
7 result2 = isTen(10)
8 result3 = isTen(9)
9 print(result1, result2, result3)
```

2
Inputs

Inputs

```
1  string = input("Please enter a string: ")
2  number = input("Please enter a number: ")
3  print(type(string), type(number))
```

```
Please enter a number: 1
Please enter a number: 2
<class 'str'> <class 'str'>
```

```
1  num1 = input("Please enter a number: ")
2  num2 = input("Please enter another number: ")
3  print(int(num1) + int(num2))
```

Use the built-in int() function to convert a number in string form into an integer so that you can use it for math operations

3
Mini-Project

Exercise:

Use inputs, if/else, & functions to create a calculator program (make 4 functions for +, -, *, /).

Steps:

1. Ask user whether they want to +, -, *, /. Store result in variable. Then ask for 2 numbers and store separately.
2. Inside each function, include an if statement to check if the input is not a number (bonus points if you make another function to do that) - print “not a number” if it isn’t.
3. Print the result if the inputs are numbers

Note: A function can have more than one parameter (separate them with commas)

Extension

1. https://codingbat.com/python/String-1
2. Try using more than 2 numbers as input for your calculator