

CSCA08 FALL 2016

WEEK 3 – MEMORY MODEL

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KEY TOPICS IN CSCA08

- Memory Model(Tracing questions)
- Design Recipe
- Loops
- Class

MEMORY MODEL

• Example 1

1. $x = 7$
2. $y = 10$
3. $x = 8$
4. $x = y$
5. $y = 15$
6. $z = x + y$
7. `print(z)`
8. $x = \text{"Hello"}$
9. $y = 2$
- ~~10. $z = x + y$~~
11. `print(x * y)`

MEMORY MODEL

• Example 2

```
1. def func_a():  
2.     x = 7
```

```
3. def func_b():  
4.     x = 7  
5.     return x
```

```
6. def func_c(x):  
7.     x = 7
```

```
8. def func_d(x):  
9.     return x
```

```
10. y = func_a()  
11. print(y)
```

```
12. y = func_b()  
13. print(y)
```

```
14. x = 10  
15. y = func_c(x)  
16. print(x, y)
```

```
17. y = func_d(x)  
18. print(x, y)
```

MEMORY MODEL

• Example 3

```
1. def func_a(x):  
2.     x = x + 7  
3.     print(x)  
4.     return x
```

```
5. def func_b(x):  
6.     x = x + func_a(x)  
7.     print(x)  
8.     return x
```

```
9. def func_c(x):  
10.    x = x + func_b(x)  
11.    print(x)  
12.    return x
```

```
13. y = func_c(3)  
14. print(y)
```