CS21: INTRODUCTION TO COMPUTER SCIENCE
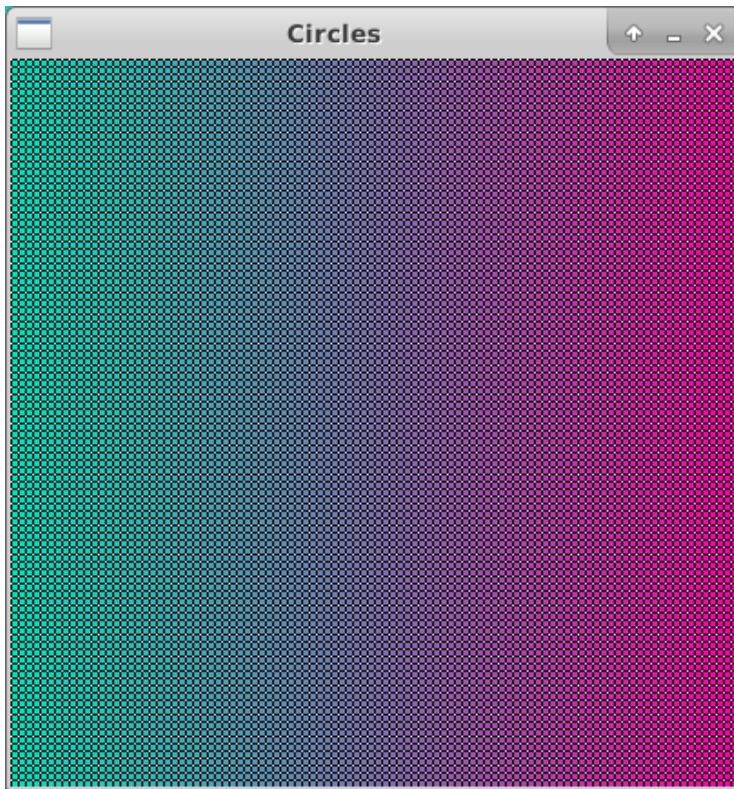
Prof. Mathieson

Fall 2018

Swarthmore College

Outline Oct 29:

- Continue TDD: 9-letter-word
- Stack diagram example
- Wed: hand back Lab 5
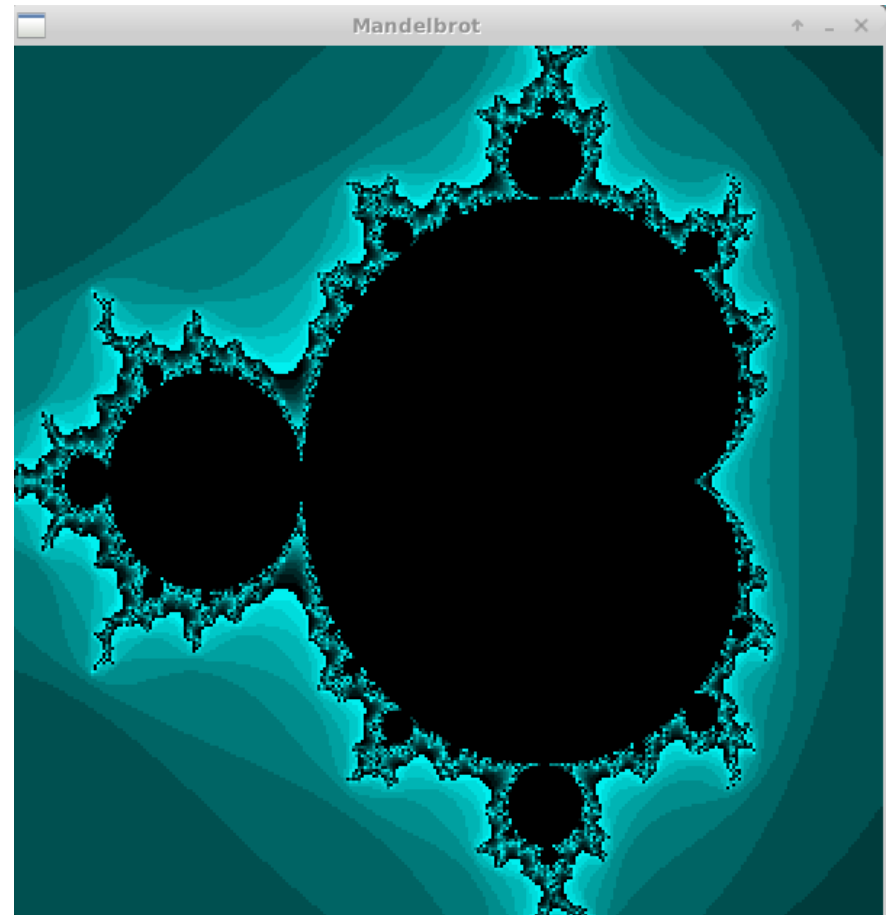- Wed: List-of-Lists (LOLs)

Notes

- **Lab 7 TDD** due **Saturday** night (email me when you finish TDD!)
- **Quiz 3** on Friday (study guide coming soon)
- Office Hours **Friday 3-5pm**

Graphics examples

Ollie

Sarah

Informal Quiz: discuss with a partner

1) For a complete TDD, should main be finished or just an outline?

2) For a complete TDD, which parts of each function should be present? **(a)** parameters **(b)** return value **(c)** description of the implementation details **(d)** comment about what the function does **(e)** function name

3) What is wrong with the first for loop below? What does it do?

```python
num_lst = [4,5,6,7]

for num in range(len(num_lst)):
    print(num)

for i in num_lst:
    print(num_lst[i])
```

4) What is wrong with the second for loop above? What does it do?

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num takes on the values 0,1,2,3 (these are the indices, not the list values)

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**num takes on the values 0,1,2,3
(these are the indices, not the list values)**

4) What is wrong with the second for loop above? What does it do?

i takes on the list values, but it is being used as an index (ERROR!)
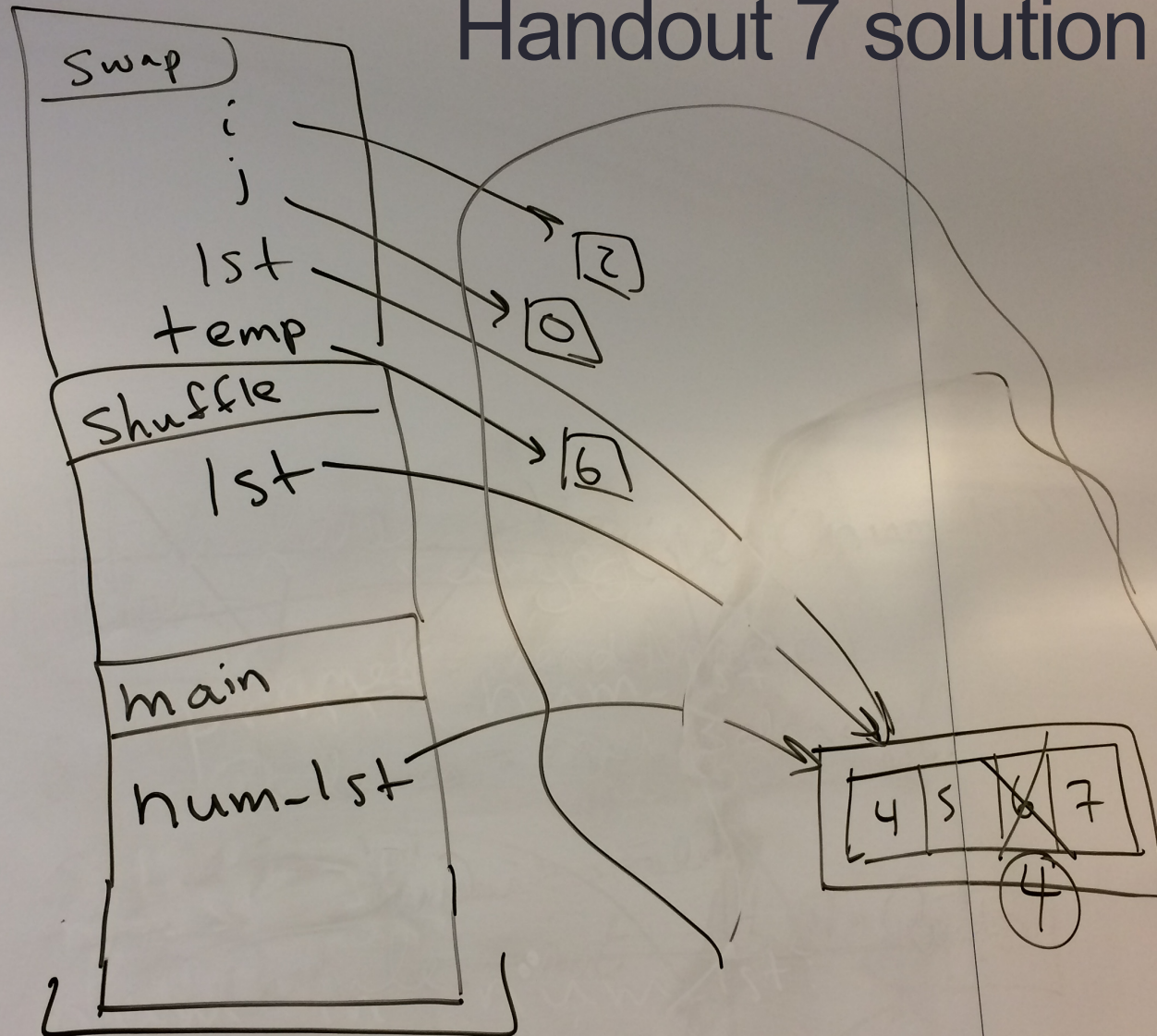
Better for loops for mini-quiz

✗ for i in range(len(num_lst)):
        print(num_lst[i])

✗ for num in num_lst:
        print(num)

These two loops do
the same thing!

Continue TDD: nine letter game
Stack diagram practice: Handout 7

Handout 7 solution

Swap
i
j
1st
temp
Shuffle
1st
main
num-1st

2
0
6

4 5 6 7
4

heap

Stack