



# DISCUSSION #1

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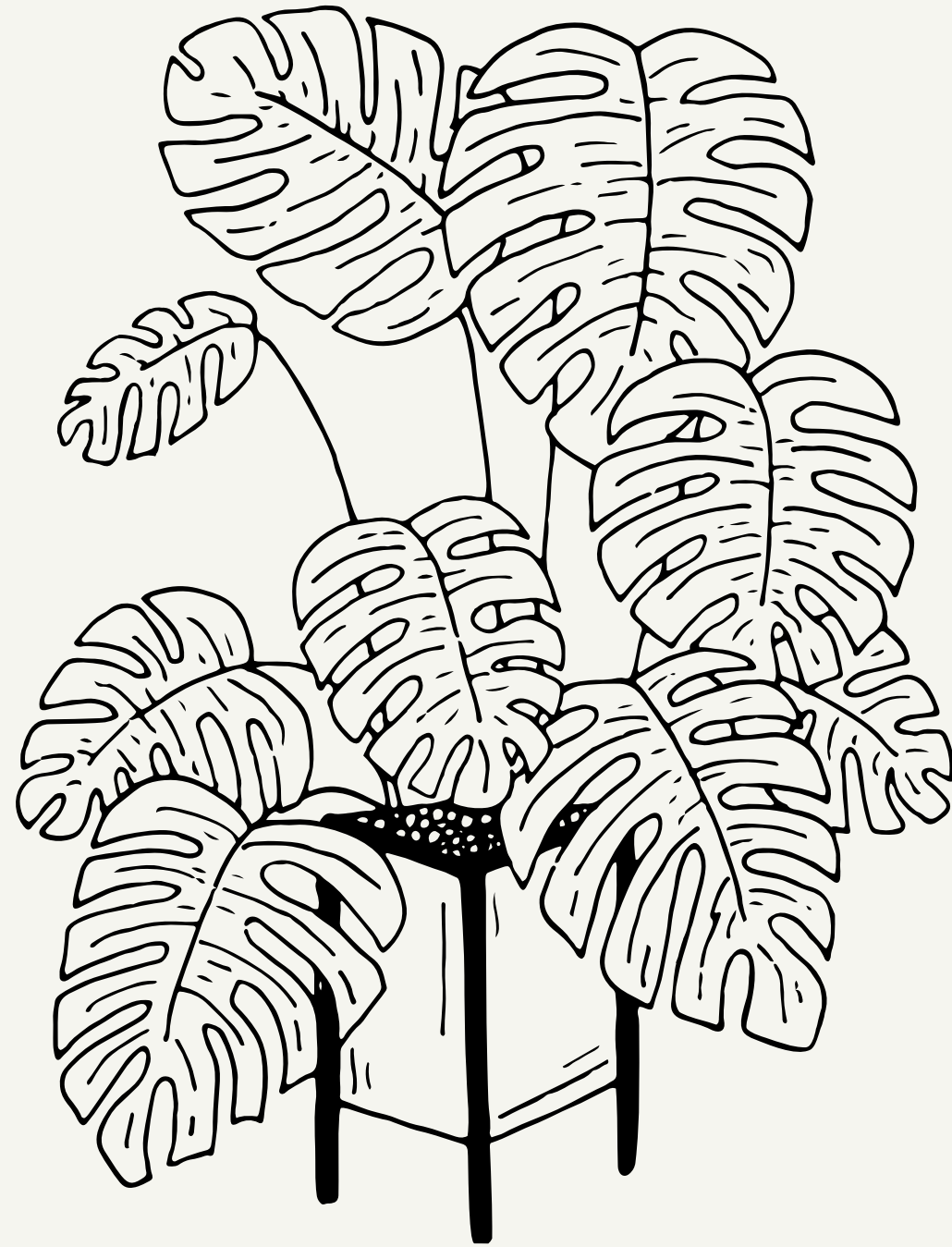
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CS312 - Section 52555

The University of Texas at Austin

Dept. of Computer Science

Monday, Sept. 12th, 2021



# WELCOME TO TODAY'S CLASS!

## TODAY'S AGENDA

Intro/Logistics/Updates (about 2-3 min) 01

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Assignment #2 Questions (5-10 min) 02

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Participation Quiz #1 (25 min) 03

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Solution/Walk-through (10 min) 04

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Belonging in CS, a brief discussion (5-10 min) 05

## INTRO/LOGISTICS / UPDATES

- TA Introduction: (name, where I'm from, and one fun fact)
- Acknowledgement: Outstanding job on your designs and code for assignment #1!
- Office hours schedule: Can be found on Piazza post @22
- Discussion slides: Can be downloaded at <https://cs.utexas.edu/~omeed>
- Mental Health and Wellness: a brief statement
- Assignment #2 - Please start if you haven't already. This is a fun assignment!

# ASSIGNMENT QUESTIONS?



SOME TIPS (credits to former TA, Santiago Moreno):

- Variable names for your for-loops should be descriptive, not just one letter:

```
for (int rowNum = 0; rowNum < NUM_ROWS; rowNum++) {  
    }  
}
```

- Have spaces between your mathematical operators, not all bunched together:

```
int fahrenheitGood = ((celsius * 9) / 5) + 32; // good!  
int fahrenheitBad = ((celsius*9)/5)+32; // bad!
```

- Design first! Structural decomposition is important. Break things down into components!
- Give it a descriptive variable name and use the appropriate constant type!
- Class constant vs. method constant scope.
- Multiple `println()`'s to construct the tower is not sufficient.
- This is a fantastic source for referencing when you are coding:  
<https://www.cs.utexas.edu/~scottm/cs312/handouts/IntroJavaStyleGuide.pdf>
- Comments should now extend to for loops, this will help you debug later.

What do you think the pattern is? The trick is integer division.

1 / 2 is 0

2 / 2 is 1

3 / 2 is 1

4 / 2 is 2

5 / 2 is 2

6 / 2 is 3

7 / 2 is 3

8 / 2 is 4

9 / 2 is 4

10 / 2 is 5

- Very similar to the rows.

- For the rows, every two numbers there is an increase of one.

- For the spaces, every two numbers there is an increase of three.

# PARTICIPATION QUIZ #1

## Instructions:

- Please navigate to Canvas => Assignments => Participation Quiz 1
- Read instructions thoroughly and press to view PDF.
- Typing is permissible. Writing is encouraged. We don't care about the format as long as we can read it.
- Upload to Canvas before the deadline, preferably in class.
  - DUE DATE: Available until Sep 14 at 11:59 pm.
  - GeniusScan, AdobeScan, etc. Image, PDF or screenshot is great!
  - There is NO guarantee we can open proprietary note app files (e.g. EverNote, Notability, etc)! This means you could get a 0.
- You will have 20-25 minutes before we move on. Good luck!



# Solution/Walk-through

```
1 public class MyClass {
2     public static void main(String args[]) {
3         operaHouse(4);
4     }
5
6     public static void operaHouse(int size){
7         int numLines = size + 2;
8         int numSpaces = size + 1;
9         for (int line = 1; line <= numLines; line++){
10            for(int space = 1; space <= numSpaces; space++){
11                System.out.print(" ");
12            }
13            for(int paren = 1; paren <= line; paren++){
14                System.out.print("(");
15            }
16            for(int space = 1; space <= numSpaces; space++){
17                System.out.print(" ");
18            }
19            for(int paren = 1; paren <= line; paren++){
20                System.out.print("(");
21            }
22            numSpaces--;
23            System.out.println();
24        }
25    }
26 }
```





# Belonging in CS



Thank you so much!

Have a fantastic day. I am looking forward to a great semester.



**CONTACTING ME:** [omeed@cs.utexas.edu](mailto:omeed@cs.utexas.edu)



Please do not be afraid to reach out! Private meeting scheduling, personal inquiries, and other things are preferred for email. Please use CS312 in addition to a descriptive subject line.