

Nicole Luong

# Week 7

Pointers

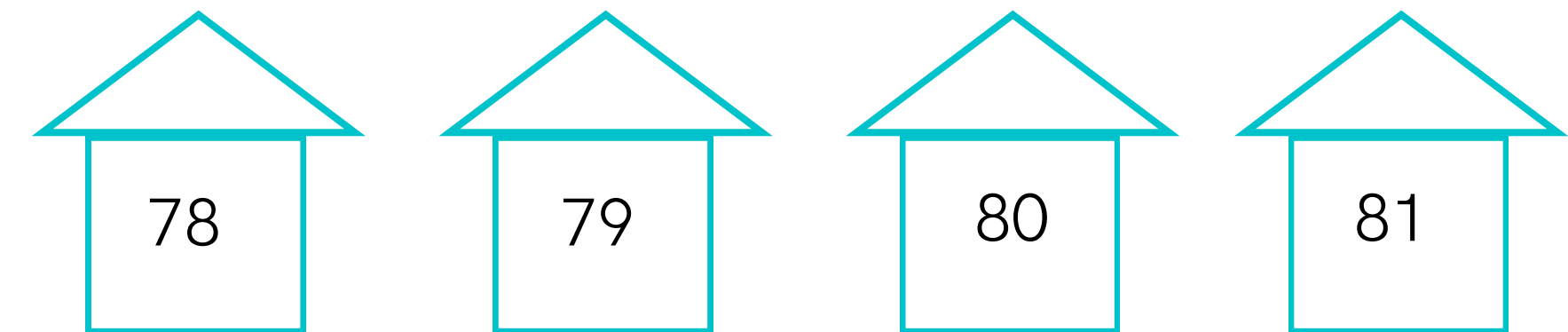
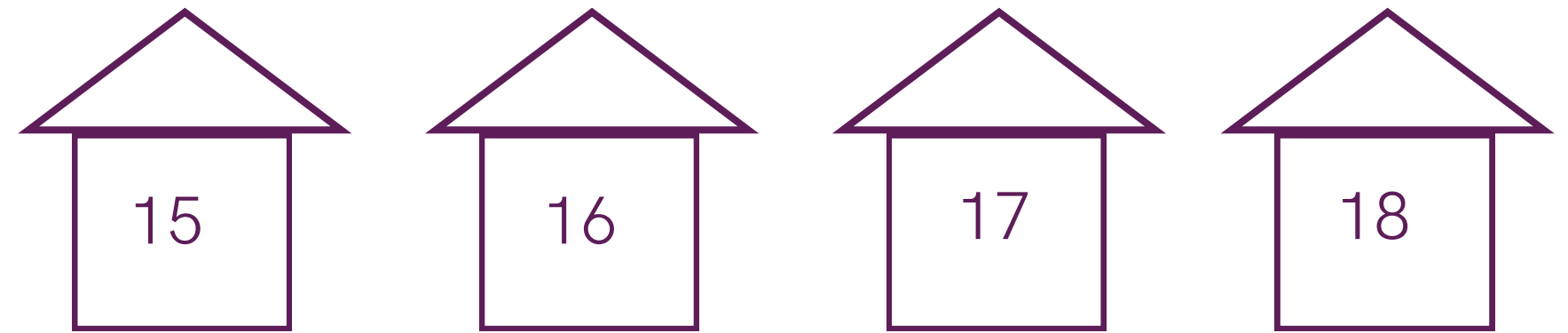
# Before we begin

Help Sessions!

How was Assignment 1?

Tutorial vs Lab

# Pointers



# Pointers

How do we:

- Initialise a variable
- Initialise a pointer
- Change the value of the variable
- Print the value of the variable

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int \*

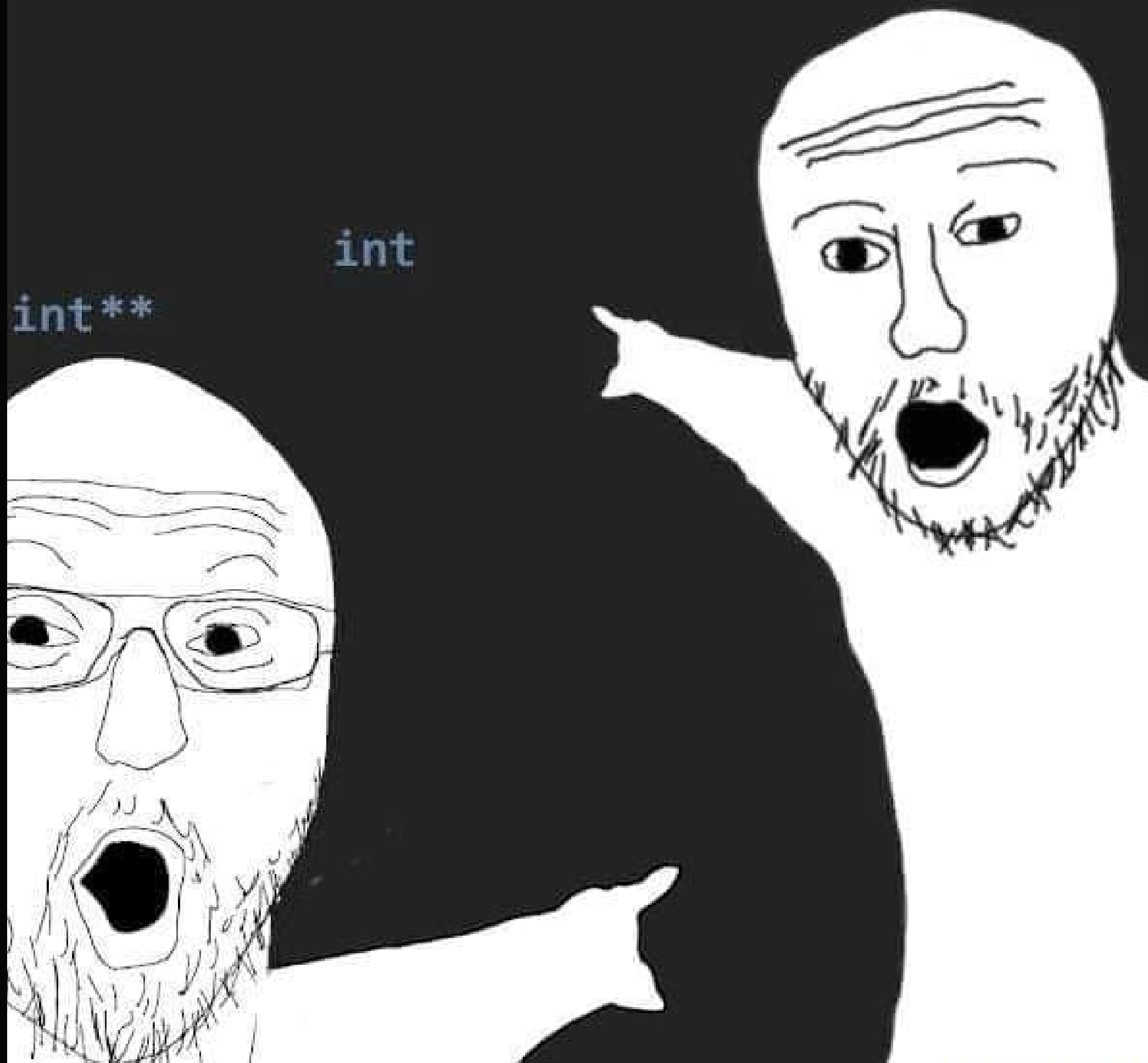
int



`int**`

`int`

`int*`



# Pointers

## Instructions

```
int n = 42;  
int *p;  
int *q;  
p = &n;  
*p = 5;  
*q = 17;  
q = p;  
*q = 8;
```

Address	Variable
0xFF80	Type: ??? Name: ??? Value: <input type="text" value="value"/>
0xFF84	Type: int Name: n Value: <input type="text" value="value"/>
0xFF88	Type: int * Name: p Value: <input type="text" value="value"/>
0xFF8C	Type: int * Name: q Value: <input type="text" value="value"/>
0xFF90	Type: ??? Name: ??? Value: <input type="text" value="value"/>

# Struct Pointers

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```
struct person {  
    char character_name[100];  
    int num;  
};  
  
// Swaps the numbers of each struct  
void swap_numbers(struct person member1,  
                  struct person member2) {  
  
    int temp_num = member1.num;  
    member1.num = member2.num;  
    member2.num = temp_num;  
}
```



# EOF Loops

```
// Change this program so it reads in
// input line by line

#include <stdio.h>

#define MAX_LETTERS 100

int main (void) {

    char my_var;
    while (scanf(" %c", &my_var) == 1) {
        printf("Input: %c\n", my_var);
    }

    return 0;
}
```



# Lab Time!

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