Nicole Luong

Week 7

Pointers

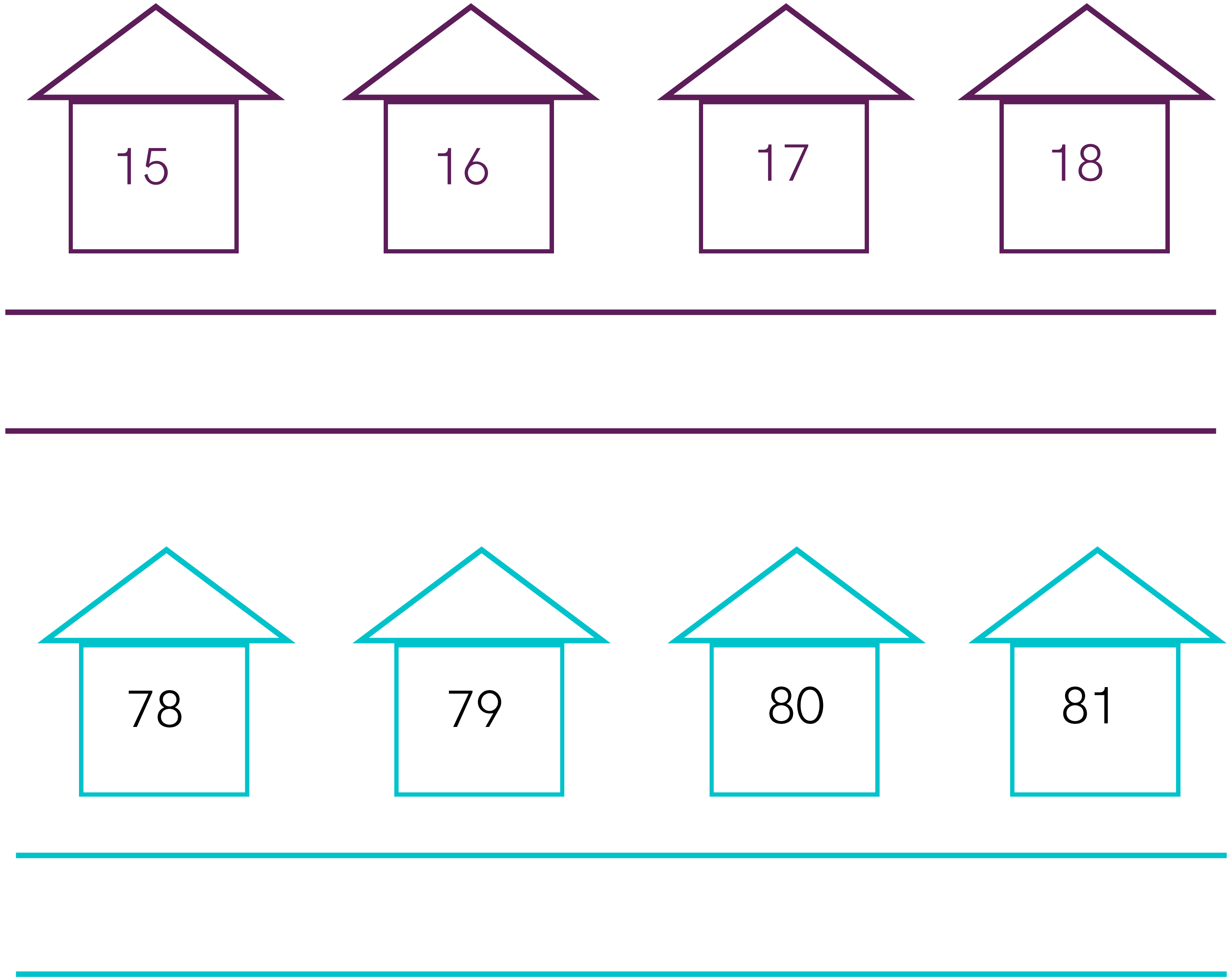
Before we begin

Help Sessions!

How was Assignment 1?

Check in week

Pointers



Pointers

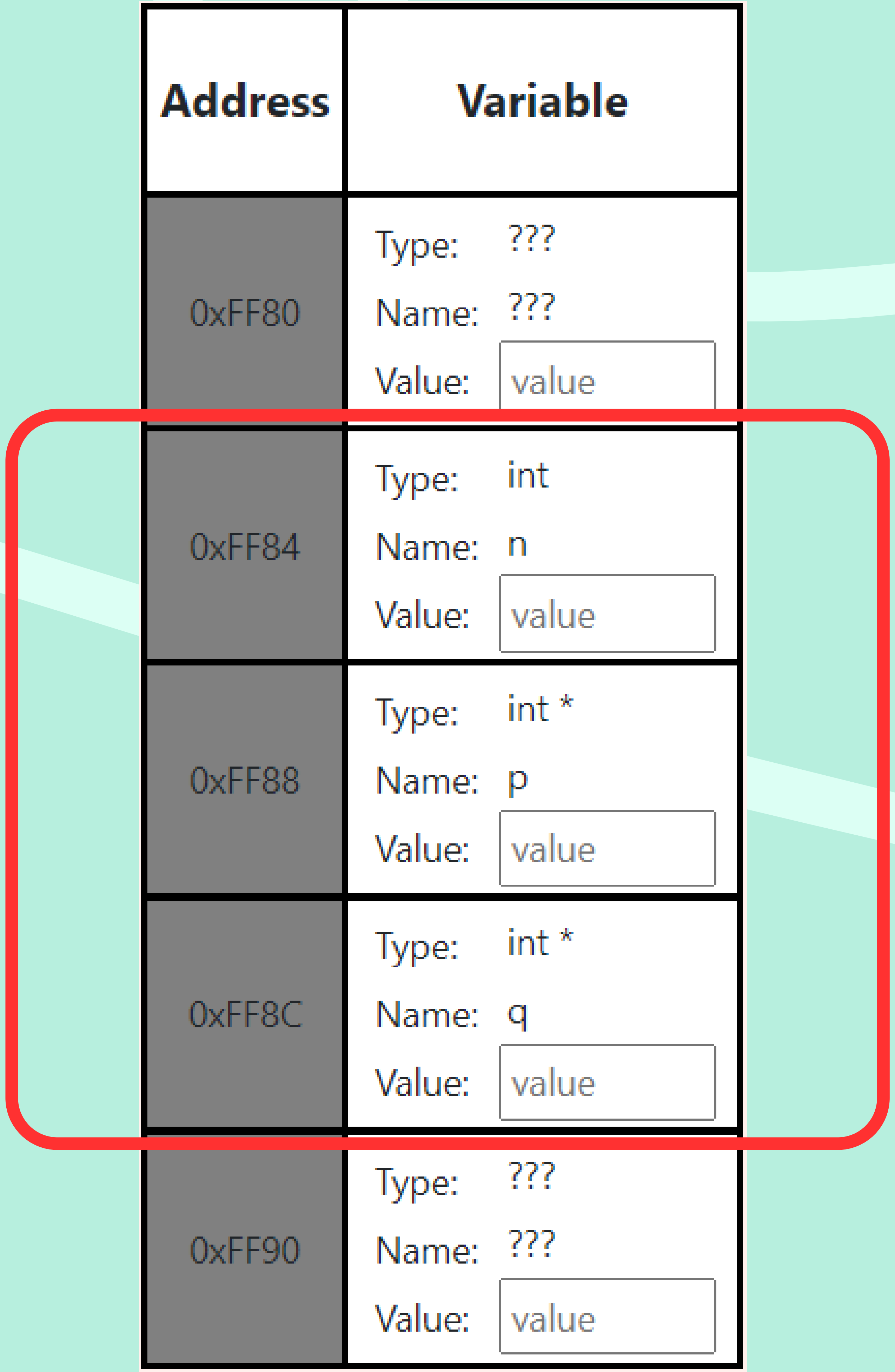
How do we:

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

Pointers

Instructions

```
1.  int n = 42;
2.  int *p;
3.  int *q;
4.  p = &n;
5.  *p = 5;
6.  *q = 17;
7.  q = p;
8.  *q = 8;
```



Address	Variable
0xFF80	Type: ??? Name: ??? Value: value
0xFF84	Type: int Name: n Value: value
0xFF88	Type: int * Name: p Value: value
0xFF8C	Type: int * Name: q Value: value
0xFF90	Type: ??? Name: ??? Value: value

Coding with Functions and Pointers

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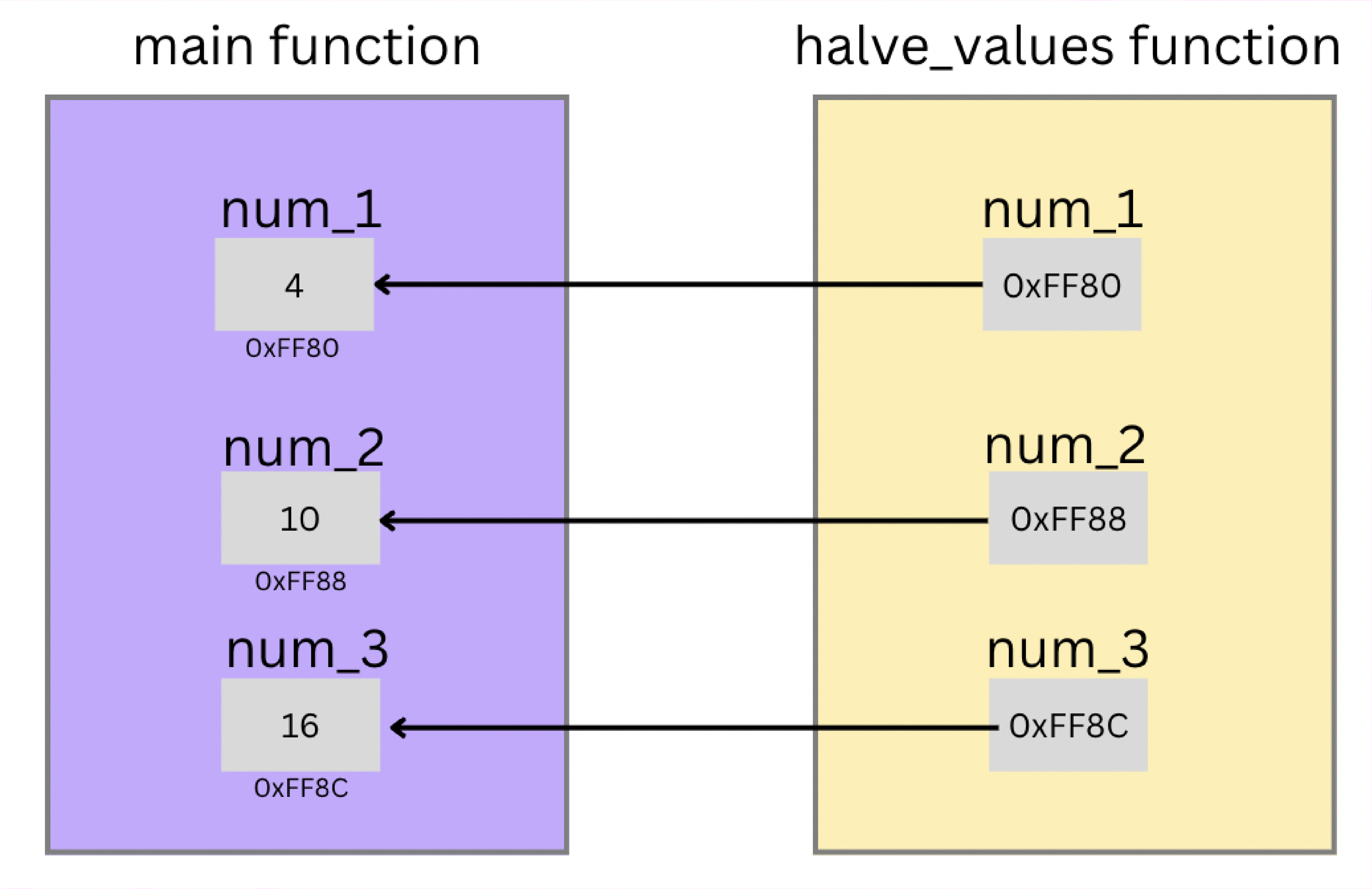
Coding with Functions and Pointers



main function

num_1

4

0xFF80

num_2

10

0xFF88

num_3

16

0xFF8C

halve_values function

num_1

0xFF80

num_2

0xFF88

num_3

0xFF8C

Struct Pointers

EOF Loops

```c
// 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;
}
```

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Command Line Arguments

Command Line Arguments

```
./program good morning everyone!

int main(int argc, char *argv[])
```

	0	1	2	3	4	5	6	7	8	9
0	.	/	p	r	o	g	r	a	m	\0
1	g	o	o	d	\0					
2	m	o	r	n	i	n	g	\0		
3	e	v	e	r	y	o	n	e	!	\0

Lab Time!