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

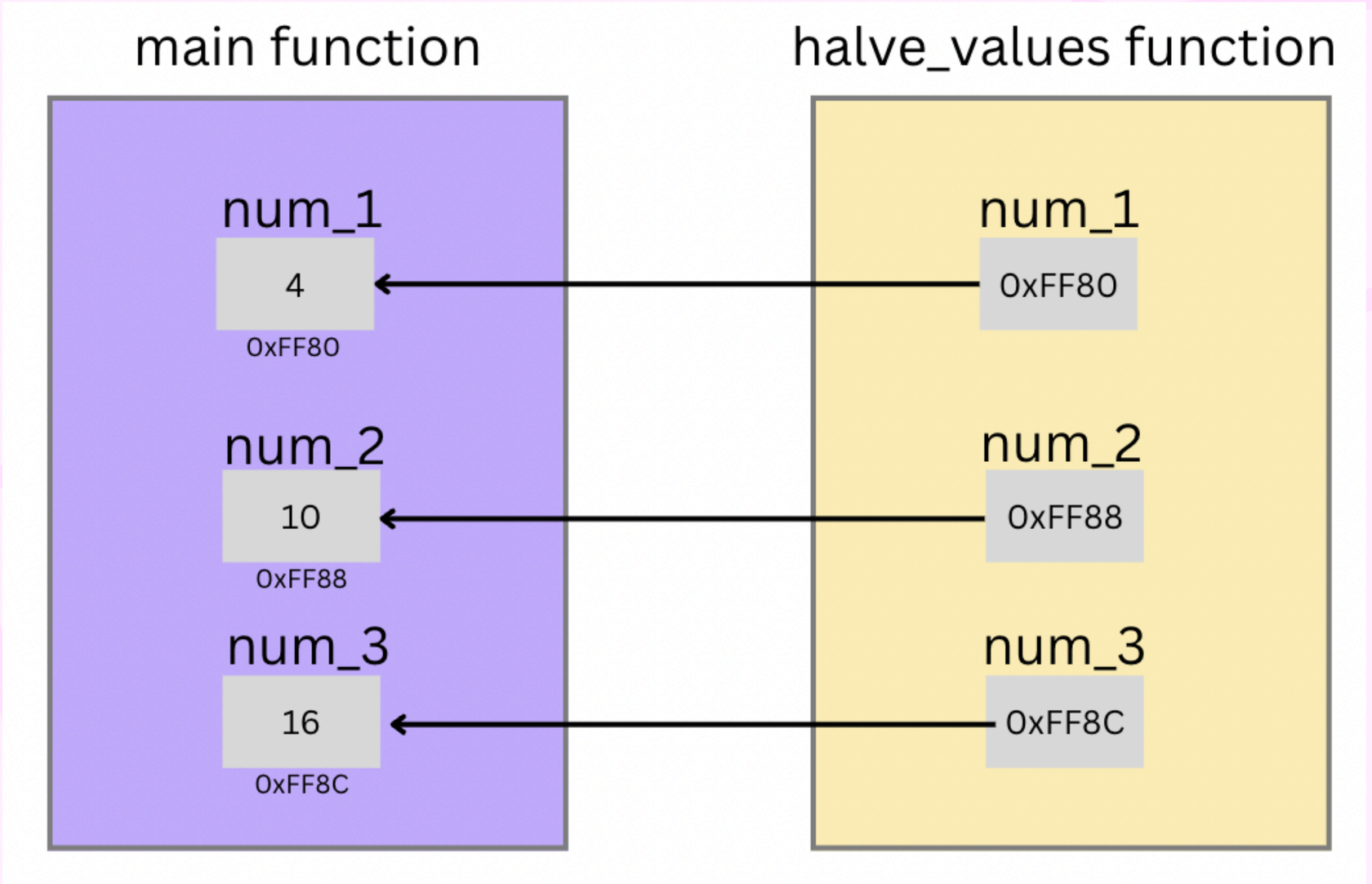
Instructions

```
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
0xFF84	Type: int Name: n Value: ???
0xFF88	Type: int * Name: p Value: ???
0xFF8C	Type: int * Name: q Value: ???

Coding with Functions and Pointers

Coding with Functions and Pointers



Struct Pointers

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

Command Line Arguments

Complete these activities in your groups

1 Sum of Command Line Arguments:

Write a C program that takes multiple integers as command-line arguments and prints their sum.

2 Count Characters in Command Line Arguments:

Write a C program that counts the total number of characters in all the command-line arguments passed to it.

3 Reverse Command Line Arguments:

Write a C program that prints all the command-line arguments passed to it in reverse order.

4 Check for Command Line Arguments:

Write a C program that checks if any command-line arguments were provided except for the program name. If none were provided, print a message indicating so; otherwise, print the number of arguments.

Lab Time!