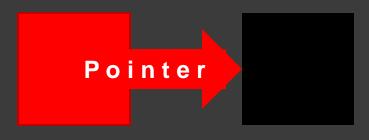
### Pointer



## Many to One



### **Invalid Pointer**



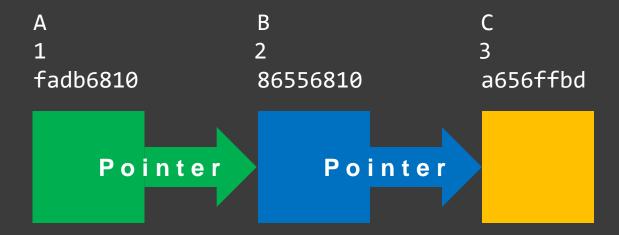
# Wild (Dangling) Pointer



### Pointer to Pointer



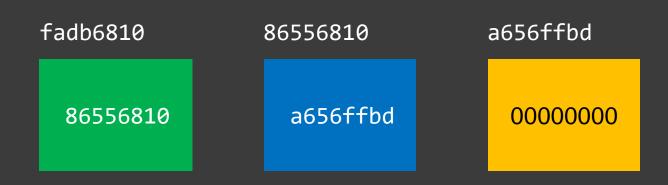
### Naming Pointers and Objects



#### Names as Pointer Content



### Pointers as Objects



# Exercise pEx1

How many pointers can you count?

2ab1000	2ab1004	2ab1008	2ab100c	2ab1010
2ab1008	ffffffff	2ab1010	2ab100c	00000000

### Common Debugger Layout

2ab1000: 2ab1008

2ab1004: ffffffff

2ab1008: 2ab1010

2ab100c: 2ab100c

2ab1010: 000000000

2ab1014: 00002000

 2ab1000:
 2ab1008
 ffffffff

 2ab1008:
 2ab1010
 2ab100c

 2ab1010:
 00000000
 00002000

#### Names as Addresses

2ab1000: 2ab1008

2ab1004: ffffffff

2ab1008: 2ab1010

2ab100c: 2ab100c

2ab1010: 00000000

2ab1014: 00002000

## Addresses and Objects

2ab1000: 2ab1008

2ab1004: ffffffff

2ab1008: 2ab1010

2ab100c: 2ab100c

2ab1010: 00000000

2ab1014: 00002000

2ab1000: 2ab1008

2ab1004: ffffffff

2ab1008: 2ab1010

2ab100c

0000000

2ab1014: 00002000