Instructions

For questions with a picture illustrating memory, assume that the memory slots are one `int` wide, and use "?" in a slot to indicate that it contains an undefined value. For each array, label an appropriately sized group of slots with the array name, and fill in the slots with the array's values.
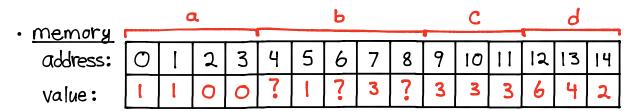
Example


```
int a[] = { 3, 5, 7 };
int b[3];
```

Question 1

arrays	

- What is the index of the first element of an array?
  Answer: 0

- What is the index of the last element of any array that holds 3 values?
  Answer: 2

- What happens when you access an element of the array that does not exist?
  If the program is allowed to access the location in memory then that location in memory is accessed as if it were an element of the array (regardless of what's actually there). If the program doesn't have access to the location in memory, a segmentation fault (segfault) will occur, and the operating system will kill the process.

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```
int a[4] = { 1, 1 };
int b[5];
b[1] = 1;
b[3] = 3;
int c[] = { 3, 3, 3 };
int d[3] = {};
for (int i = 0; i < 3; i++)
    d[i] = (3-i)*2;
```