

Memory Model Question

Consider the memory diagram below. The diagram shows the state of the program exactly before the function `sep` returns. Uninitialized blocks of memory have ??? for their values. Complete the code to match the diagram. Your code should free all memory at the appropriate time. The function should work as expected even if we changed the arguments to the function. In other words, you will not get full marks if you hard-code the solution.

Your code will be written in `q2.c`. You do not need to submit this file.

(Note that the "|" around the Values in the Read-only section are not part of the value. The "|" shows where the value begin and ends.)

Section	Address	Value	Label
Read-only	0x100	I'm	
	0x104	not	
	0x108	a ca	
	0x10c	t?\0	
	0x110		
	0x114		
	:	:	
Heap	0x240	0x103	
	0x244		
	0x248	0x107	
	0x24c		
	0x250	0x109	
	0x254		
	0x258		
	0x25c		
	:	:	
	0x454		
	0x458		
Stack <i>sep</i>	0x45c		
	0x460	0x100	str
	0x464		
	0x468	3	num
	0x46c	3	j
	0x470	9	i
	0x474	0x240	arr
	0x478		
	0x47c		
	0x480		
	0x484		
<i>main</i>	0x488	3	n
	0x48c	0x100	words
	0x490		
	0x494	???	ptrs
	0x498		