

CS2123 Data Structures

Trace the following program, show how variables change in the memory, and give the output.

#include <stdio.h>**main()**

{

int x, y, z[3], *p1, *p2;**p1 = &x;****p2 = z;****z[1] = 6;*****p2++ = 5;*****++p2 = 8;*****p1 = 4;****printf("%d %d %d \n",
p1, *p1, &p1);****printf("%d %d %d \n",
p2, *p2, &p2);****p2 = z + 1;****printf("%d %d %d \n",
*p2, *p2+1, *(p2+1));****}**

MEMORY

name	Add ress	Content/Value
x	12	
y	16	
z[0]	20	
z[1]	24	
z[2]	28	
p1	32	
p2	36	
...		
	100	
a	104	
b	108	
c	112	
d	116	
x	120	
y	124	
	128	

OUTPUT: