```c
 1  /* https://stackoverflow.com/questions/12687274/size-of-stack-and-heap-memory */
 2  #include <stdlib.h>
 3  #include <stdio.h>
 4  #include <unistd.h>
 5
 6  void check(int depth,char a) {
 7      char b[1024*1024];
 8      char *ptr = malloc(1);
 9      printf("heap at %p\n", ptr);
10          printf("&b: %p\n", &b);
11      printf("&depth: %p, depth: %d\n", &depth,depth);
12          printf("&a: %p\n\n", &a);
13      if (depth <= 0) return;
14      check(depth-1,a);
15  }
16
17  int main() {
18          printf("&main: %p\n", &main);
19          printf("&check: %p\n\n", &check);
20      check(3,'a');
21          getchar();
22      return 0;
23  }
```