

Memory Model

1. Define these terms:
 - a. Compile-time (static) memory –
 - b. Runtime (dynamic) memory –
 - c. Allocate –
 - d. Deallocate –

2. Compare and contrast the stack and the heap.
 - a. What they do?

 - b. Where are they positioned in computer memory?

 - c. What happens if the stack gets too large?

 - d. What happens if the heap gets too large?

 - e. Can variables on the stack or the heap both be deleted?

3. What is a memory leak, and how do you prevent them?

4. How do you create 1-D arrays on the stack? On the heap?

1-D Arrays

5. Write a function called “get_array()” that takes in a size, then return an array of integers on the heap of that size. Consider what return type this function should have. Show how you would call it from main().

