Practical Exercise 1

Questions:

1. Experiment with different (also large) values for the parameter n. Why does the program fail to run correctly until its end beginning with a certain value of n? What is this value on your computer?
2. Which distance (in bytes) do the addresses of two variables have that are declared one after the other in main()? Explain, why the distance is the one you see.

* The address of c = 0x55d9f2509010
* The address of a = 0x7fff2d65c364
* The address of sum = 0x55d9f2509014

1. Why is a global int variable located at a completely different address?

* Because they are stored in different segments:
  + Global variables are store in data
  + Local variables are stored in a stack

1. Why does the address of a local variable in the recursive function decrease the higher the level of recursion is?

* This happens because the local variables are stored in a stack, and the stack grows towards lover level addresses.