In this lab, we will explore the structure of the stack.

1. Without using STM, write code that emulates the functionality of STMDB R13!, R8, R9, R10, R11, R14. You should be able to do this using SUB and plain STR.

2. Without using LDM, write code that emulates the functionality of LDMIA R13!, R0, R4, R8, R12, R14. You should be able to do this using ADD and plain LDR.

3. Remember the calling convention for extra arguments:

   ![Diagram of calling convention]

   Assuming that all calling functions will correctly implement the calling convention, fill in the missing prologue code to get extra arguments 1, 2, and 3 and put them in R10, R11, R12, respectively.

   \[
   n\text{Args}: \quad \text{STMDB R13!, \{R10,R11,R12,R14\}} \\
   \text{<your code goes here>}
   \]