

The checksum of a set of numbers is the sum of all the elements of the set, ignoring the carry. Write and execute an ARM assembly language program to calculate the checksum of a set of numbers, available in the code memory as LIST, which is initialized with 0x28, 0x55, 0x26, 0x70, 0x45, 0x30, 0x62 and 0x85. The size of the set whose checksum is to be calculated is defined by the variable LENGTH. You are supposed to find the checksum by adding all the numbers up to LENGTH from the first element in the LIST, ignoring the carry. Store the checksum in the variable CHECKSUM.

Sample input and output

Input: LENGTH: 3

Output: CHECKSUM = 0x28 + 0x55 + 0x26
=A3

Note: You should upload a single document containing the executed code and two screen shots corresponding to two values for LENGTH. Your screen shot should be the debugging window with your registration number visible in the path. The output memory window and the register window also should be visible in the screen shot. This means that you should create the project and save your file in the folder named by your registration number, then execute all the instructions, then pop up the output memory window and then take the screen shot.