Brian McIlwain

EE3752 Lab 2 Section 4

Purpose

The purpose of the experiment was to introduce students to the concept of conditional looping and branching in ARM assembly as well as gain more overall experience with implementing basic functions. The only new topics introduced in this lab was nesting conditional logic.

Method

1) I solved problem 1 (shown below) using an approach of almost direct translation. The only alteration that I made was that I tried to keep conditions as close as possible to the instructions that actually used/depended on them.

h = 1

for i = 0 to 5

h = (h \* 3) - i

2) Problem 2 (see below) was also very simple. The main challenge present here was figuring out how to deal with nested conditional instructions. My attempt to keep conditions as close as possible to the instructions that depended on them proved necessary to completing this part.

h = 1

for i = 0 to 5

if h < 102

h = (h \* 3) - i

Results

1) As mentioned earlier, problem 1 was very simple and I completed it via almost direct translation of the sudo-code. The final result I stored in r0 and found to be 0x226 (550).

2) Part 2 was just a bit harder, because we had to figure out how to implement nested conditionals. I stored the final result in r0, and it was 0xB9 (185).