HW 3-1

Due Sep 21 at 3:30pm **Points** 18 **Questions** 6 **Available** until Sep 21 at 3:30pm **Time Limit** None

This quiz was locked Sep 21 at 3:30pm.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	3,189 minutes	16 out of 18

Score for this quiz: **16** out of 18
Submitted Sep 18 at 11:49pm
This attempt took 3,189 minutes.

Question 1

3 / 3 pts

Which register holds the stack pointer? r13

Which register holds the return address? r14

Which register holds the program counter? r15

Answer 1:

Correct! r13

Answer 2:

Correct! r14

Answer 3:

Correct! r15

Question 2

2 / 2 pts

Which is more efficient for loading a constant value, the *ldr* pseudo-instruction, or the *mov* instruction? Explain.

Your Answer:

ldr will automatically use the mov instruction if the value is too large or ineligible for the mov instruction. Therefore, the ldr instruction is more efficient at loading any general constant value.

Question 3

2 / 2 pts

The *stm* and *ldm* instructions include an optional '*!*' after the address register. What does it do?

Your Answer:

The optional ! for stm and ldm will make the address register Rd to be changed after the first registers are stored / loaded.

Question 4

2 / 2 pts

What is the difference between a memory location and a CPU register?

Your Answer:

A memory location is a specific location in memory where data or information can be stored. A CPU register can contain values, addresses, and information similar to a memory location, but is changed frequently to carry out operations of the program, such as loading, adding, subtracting, then storing the value into a different memory location that isn't the CPU register, in order to handle the next set of tasks.

Question 5

0 / 2 pts

How many registers are provided by the ARM Instruction Set Architecture?

You Answered: 37

Correct Answers: 17 (with margin: 0)

Question 6

7 / 7 pts

Match the following instructions to their meanings.

Correct!	**b**	causes a branch to label.
Correct!	**bl**	causes a branch to label, and
Correct!	**ldreq**	load register if flags indicate e
Correct!	**ldrlt**	load register if flags indicate l
Correct!	**bgt**	branch if greater than
Correct!	**bne**	branch if not equal
Correct!	**bge**	branch if greater than or equa

Quiz Score: **16** out of 18