

a.

Start address:

0x100

End address:

0x103

Memory Map

Word Address	Byte 3	Byte 2	Byte 1	Byte 0	Word Value
0x100	0x0	0x0	0x0	0x37	0x37

Word Value Format

Dec

Hex

Memory Map Key

Instructions

Data

b. Copy of Cod

max	EQU	10	;define x= 10
sum	DCD	0	;define a storage name sum = 0
	MOV	R0, #0	; use R0 to starting place
	MOV	R1, #max	; set R1 to max to 10
loop ;label	loop		
	CMP	R1, #0	;compare R1's value and 0
	BEQ	done	; if R1 = 0 out the loop
	ADD	R0, R0, R1	; add R0 + R1
	SUB	R1,R1, #1	; reduce R1 by use after each round of loop
	B	loop	; back to the loop
done	LDR	R2, =sum	;load sum into R2.
	STR	R0, [R2]	;saving R2's value into R0
	END		

c. Through Lab1a, I learned how a simple C++ loop translates into an ARM-based assembly language. Also, I learned some of the keywords for the assembly language, such as MOV, CMP, ADD, SUB, LDR, and STR. Another thing that I learned from this lab is the feature in the VisUAL