


# Assignment Previewer

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## Previewer Tools

### ECE 109 PRACTICE HW 9 (616971)

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#### About this Assignment

Due: **Thu Apr 3 2008 02:19 PM EDT**

#### Description

Here are some additional questions to practice for Exam II

1. Symbol Table 2 - Fall 2007 [791163] [Show Details](#)

## Symbol Table

In the following problem you are given the assembly code for a program, and you are given the task of filling in the symbol table associated with the program. Use the assembly reference below to fill in the appropriate entries in the symbol table given.

**Note:** The addresses in the Symbol table should be entered as hex values

```

        .ORIG x3000
        LD R1, FIRST
        LD R2, SECOND
        LD R3, THIRD
        LD R4, MID
        ADD R5, R1, R2
        ADD R5, R5, R3
        ADD R5, R5, R4
LOOP    ADD R5, R5, #-1
        BRnp LOOP
        BRnzp DONE
MID     .FILL x4
DONE    HALT
FIRST   .FILL x1
BLOCK   .BLKW x10
SECOND  .FILL x2
WORDS   .STRINGZ "Test"
THIRD   .FILL x3
        .END
    
```

### Symbol Table

Label	Address (In Hex!)
LOOP	0x <input type="text"/>
MID	0x <input type="text"/>
DONE	0x <input type="text"/>
FIRST	0x <input type="text"/>
BLOCK	0x <input type="text"/>
SECOND	0x <input type="text"/>
WORDS	0x <input type="text"/>
THIRD	0x <input type="text"/>

2. Symbol Table 1 Fall 2007 [791158] [Show Details](#)

## Symbol Table

In this question you are given the symbol table entries generated by the assembler during its first pass. Now it is your job to use these entries to assemble the program below. You should take the assembly listing below, and for each line, you should generate the binary instruction equivalent to that line.

Note that the actual labels have been removed from the code. In order to assemble the code you must use the symbol table entries

**Note:** Your answers should be in binary without any spaces! (e.g. 1011010010001000 is valid, but 1011 010010001000 is not valid)

Assembly Listing	Assembled Binary
.ORIG x3000	
LD R0, LABEL1	<input type="text"/>
LEA R1, LABEL2	<input type="text"/>
LDR R2, R1, #0	<input type="text"/>
ADD R0, R1, R0	<input type="text"/>
BRnz LABEL3	<input type="text"/>
ADD R0, R0, #-1	<input type="text"/>
BRp LABEL4	<input type="text"/>
NOT R2, R2	<input type="text"/>
STI R2, LABEL5	<input type="text"/>
HALT	1111000000100101

Symbol Table

Symbol Name	Page Address
LABEL1	x300A
LABEL2	x300B
LABEL3	x3007
LABEL4	x3005
LABEL5	x300C

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