

- **First item for your report** - The address of `median`

Now, look more closely at what LA did. It put the address of `median` into the register you chose. Give the address in hexadecimal.

If all of the registers are in decimal instead of hexadecimal, look at the Settings menu to change them to hexadecimal.

- `$t3` went from holding a value of `0x00000000` to a value of `0x10010074`

- **Second item for your report** - The two instructions that make up LA

Next, look at the two instructions which make up the LA pseudoinstruction (the first is LUI). Write down, for your report, exactly what MARS shows in the Basic column of the Text Segment for these two instructions. The register names won't look familiar - this column uses register **numbers** instead of names - but the second instruction should have a name that you've seen before.

- `lui $1, 0x00001001`
- `ori $11, $1, 0x000000074`

- **Third item for your report** - Hex encodings

Finally, write down the actual 32-bit hex encodings of these two instructions (which you can find in the Code column). Do you see the constants used by these instructions stored inside those encodings somewhere?

- `0x3c011001`
- `0x342b0074`

2.1 MEDIAN: `asciiz` "median: "

`m` = 6d

`e` = 65

`d` = 64

`i` = 69

Data Segment	
Address	Value (+0)
0x10010000	0x6964656d

From this exercise I learned not only how strings, variables, and integers are stored in registers and moved to memory, but also how to see (step-by-step) how MIPS is processing each command I have entered. I also learned that the hexadecimal representations of ASCII characters are stored backwards as words in address memory.