

Question 4 (10 points): Consider the following segment of C code:

```

...
V[V[i]] = V[V[i+1]];
...

```

The variable `i` is declared as an integer, and variable `V` is declared as an array of integers.

- a. **(5 points)** Immediately prior to the execution of this statement, `V` and `i` are in RISC-V registers. How many load instructions and how many store instructions must be used in the RISC-V assembly code that executes this C statement?
- b. **(5 points)** Immediately prior to the execution of this statement, `V` and `i` are in memory locations in the stack frame of the function. How many load instructions and how many store instructions must be used in the RISC-V assembly code used to generate the code for this assignment?