Read and perform the lab guide posted on the course website. Answer the questions in the lab guide as you get to them in the spaces below. The numbers below refer to steps in the lab guide.

3.3 Where are main, loop, exit, N and Sum located (i.e. what address)? Hint: Simulator:Display Symbol Table might be useful.

3.5 How many instructions were actually executed? What is the final value of Sum?

3.7 How many instructions does your modified program execute when N is equal to 5? Can this number be improved? If so, how? Hint: If you added 5 instructions, you can do better.

3.8 Will your modified program work if N is less than 0?
4.3 What is the value of \textit{max} and \textit{maxindex} at the end of the program? Are they what you expect?

4.4 Comment out \texttt{s11 $t5, $t2, 2} and rerun the program. What happens? Why?

4.6 If you repeatedly apply your modified program to the subarrays of \textit{A} from 0 to \textit{N} - \textit{i} where \textit{i} is the number of times you’ve applied your program, what is the final state of \textit{A}?

4.7 Like \texttt{p4.asm} this program doesn’t work if \textit{N} is equal to 0. It is brittle in other ways as well. For example, what happens if all of the elements are less than -1? How could you address this?

5.5 What is displayed in the console window?