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Micro 2, EECE.4520

HW4

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1. There are up to 2 paths that this program will take. The first is the “if (flag)” as the program will branch off to execute that for loop if the flag is raised. The second path is when the flag is not raised as the program will bypass the if statement and continue to the second for loop and return the sum.
2. If the first loop is executed, *T* will double. This is because the second loop will always run, but when the first loop runs, the program will “sit” there iterating that loop 200 times and then perform the second loop.
3. If both arrays map to the same set in a direct mapped cache, the function could benefit. The benefit of the direct mapped cache is that storing the array values will be much faster than having to send the arrays to memory. There would be a solid decrease in execution time because of this.