Assignment 3

The assignment was about translating a C code into assembly and vice versa for the next part and analyzing the results of the implementations.

FORMULA

• Challenge:

The biggest challenge I face was figuring out how variables from a C code can be equivalent to the stack behavior (closer to machine language) in assembly code.

• Big-O Analysis:

My implementation requires 32-bit integers. So any value that is not a 32-bit integer will cause the program to overflow and return. So the maximum value that can be inputted will be 12 because 13 will cause the program to overflow when reaching the multiplication instruction in the assembly code. The time required to do the calculations is relatively low and does not require a lot of time. The comparisons are simple, and printing to the screen can be neglected.