Description: This program consisted of having the formula $(1+x)^n$ expanded to the nth digit.

Design: For formula, one input was taken in. Given the linked assembly, the number is put through assembly to give out an output. The output given is in the format of $(1+x)^n$. The specific parts that was coded in assembly was the formula nCr = n!/r!(n-r)! and factorial. Since this was a 32 bit integer, it was easy for it overflow at just 13 meaning that 12 is the maximum integer you can input before it detects an overflow. I had trouble trying to figure out how to actually act on this overflow and this gave off an error if I didn't fix it. Using the jump on overflow instruction, if it detects an overflow in assembly I have it return a 0 in which case in the c code I have it return a -1 which triggers an overflow error.