

Lab02

Piecewise function

Background: For a given integer variable x , x in $[0,100]$, calculate the result of $f(x)$, $f(x)$ is as follow:

$$f(x) = \begin{cases} 2, & 0 \leq x < 3 \\ x^3 - x, & 3 \leq x \leq 10 \\ x + 1, & 10 < x \leq 100 \end{cases}$$

Your job: Write a program in assembly language to output all the results of $f(x)$. Your program should start at x3000.

Program input: 60 integers which are in $[0, 100]$. The input list is stored in 60 consecutive memory locations -- one score per location -- starting at address x3200. The last score is at location x323B.

Program output: The results of $f(x)$ for all 60 x values. The results should be stored in consecutive memory locations -- one result per location -- starting at address x3300.

Note: Test your program thoroughly before you submit. Make sure there are no silly mistakes. Please note that there will be NO regrades for this programming lab under any circumstances.

Submit your Program: The program you are to submit is the **.asm file and report**. Save your .asm file, and give it the name **ID_Name_Lab02.asm**. Give your report the name **ID_Name_LAB02.pdf**.