Homework 2

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Your task is to read one integer from the standard input, and print the sum of the factorials of its digits:

$$167 \Rightarrow \textbf{1!} + \textbf{6!} + \textbf{7!} = 1 + 720 + 5040 = 5761$$

➢ **Notice that 0! = 1.**

Your code **must** comply with the following rules:

- You can only use the EAX, EBX, ECX, EDX, ESI and EDI registers.
- You are **not** allowed to use the memory/data segment.
- You must use the **read_int** and **print_int** functions (from the textbook) for I/O.
- You can only use the commands you have learned so far in the class. You <u>cannot</u> use MUL, IMUL, DIV, IDIV, etc.
- You <u>MUST NOT PRINT ANY REDUNDANT DATA</u>.

Remember that your code will be tested for similarity. In the case of cheating the student will receive a **negative** mark. It is your responsibility to protect your code.

Please upload **only** the ".asm" file on **vc.kntu.ac.ir.**

Example:

Input:
145
Output:
145

Input:
1055
Output:
242

Input:
12
Output:
3

Input:
111
Output:
3

Input:
0
Output:
1