

**Fall 2018 CIS 3362 Homework #3: ADFGVX cipher code**  
**Due: Check WebCourses for the due date.**

Write a program to encrypt plaintext or decrypt ciphertext created by the ADFGVX cipher. Please either write your code in C, C++, Python, or Java.

Your program should read input from **standard input** that conforms to the following format:

1. 6 x 6 square, space separated on six lines
2. 7th line will be keyword all caps
3. 8th line will be n, # of messages to encrypt or decrypt.
4. Each of the next n lines will start with an integer, either 1 (encrypt) or 2(decrypt), indicating what task you'll perform for the message. This is followed by a space, followed by the message. If the task is to encrypt, the message will consist of no more than 500 characters taken from the uppercase letters and digits. If the task is to decrypt, the message will consist of no more than 1000 characters taken from the set {'A','D','F','G','V','X'} and will be of even length. Each message will have a positive number of characters.

Your program should **output to the screen** the corresponding plaintext or ciphertext, one per line. A sample input file will be posted shortly. (Note: I won't post the matching output because for this sort of task it largely verifies the correctness and I want you all to make your own test cases to verify correctness.)