

Homework 4

Deadline : 6/8 00:00

(a) Implementation

5/31 lecture have explained the Encryption and Decryption using matrix inverse. Please implement it and submit the results with code. The given key matrix is $\begin{bmatrix} 17 & 17 & 5 \\ 21 & 18 & 21 \\ 2 & 2 & 19 \end{bmatrix}$, and plaintext is "paymoremoney". You have to first generate the ciphertext and then plaintext from the ciphertext. You can use C/C++/Java/Python/Matlab or any other language, but you can not use any predefined inverse function directly to find the inverse of the matrix.

(b) handwritten

use the Gauss-Jordan Elimination method to find the inverse of the matrix $\begin{bmatrix} 17 & 17 & 5 \\ 21 & 18 & 21 \\ 2 & 2 & 19 \end{bmatrix}$.