

# [ENCRYPT YOUR OWN MESSAGE]

Do you need to pass a secret note about all the Instagram drama, but can't risk the information falling into the wrong hands? Do you have a BFF that you aren't exactly BFFs with anymore?

In this assignment, you will encrypt a message into a matrix and hand it in to your teacher. Once the teacher has all the encrypted matrices, they will randomly pass the matrices out and they will need solved. What secret message will you receive? Who will read yours?

## [How to Encrypt a Message]

Step 1: The message will need to be converted to numbers where A=1, B=2, Spaces=0.

Step 2: The message will need to be entered into a  $R \times 2$  matrix. There CAN ONLY be two columns. The rows are unlimited. This will be Matrix A

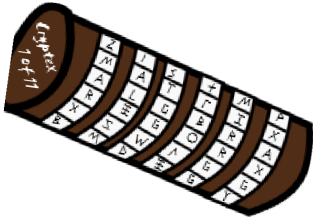
Step 3: Create an invertible  $2 \times 2$  Encoding matrix called B.

Step 4: Multiply  $A \times B$  which will equal encrypted Matrix X.

Step 5: You will write down the encrypted matrix and the encoding matrix.

Message:

Unencrypted Matrix	Encoding Matrix	Encoding Inverse



# [TALES TO ENCRYPT]

Name \_\_\_\_\_ Date \_\_\_\_\_

to be completed by the Encrypter

Encrypted Matrix	Encoding Matrix
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to be completed by the Code Breaker

Encoding Matrix Inverse	Unencrypted Matrix
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Message
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