

## main.py

```
The matrix is not square.  
The matrix is invertible.  
  
Plaintext: ATTACKATDAWN  
Plaintext column vectors: [array([[ 0],  
[19]]), array([[19],  
[ 0]]), array([[ 2],  
[10]]), array([[ 0],  
[19]]), array([[3],  
[0]]), array([[22],  
[13]])]  
  
Ciphertext: WBDBQCWBVHYV  
Ciphertext column vectors: [array([[22],  
[ 1]]), array([[3],  
[1]]), array([[16],  
[ 2]]), array([[22],  
[ 1]]), array([[21],  
[ 7]]), array([[24],  
[21]])]  
  
Plaintext: ATTACKATDAWN  
Plaintext column vectors: [array([[ 0],  
[19]]), array([[19],  
[ 0]]), array([[ 2],  
[10]]), array([[ 0],  
[19]]), array([[3],  
[0]]), array([[22],  
[13]])]  
  
The determinant = 0.
```