1. Suppose you know the following message was enciphered with Hill (2 dimensions with mod 29):

GK QY Q, MU GK

Break it knowing the first word of the message is "return".

- 2. Encipher the message "You should take math logic" using Playfair system with key work "coupons."
- 3. Decipher the message:

OC YT ZK WR NA HG FC GZ SQ TK LB ER

using the Playfair system with key work "finally."

4. Encipher the following Charles Dickens quote

"I wear the chain I forged in life....I made it link by link, and yard by yard; I girded it on of my own free will, and of my own free will I wore it."

using rectangular transposition with key word rights.

5. Decipher the following message

WSDMO EEHIA RCNHP NLLGL ANPTE XTTAA TYATD ETNML HTIHR NNISR EANEW RYYES INONE ASHSA HDEAE HTEAD IMMTA OTAEM LRARN EEEIL YLRAL NEYSV EDNSM SAP

knowing it was encipher with rectangular transposition with key word *steeped*. Make sure restore spacing between words, capitalization and add punctuation to make it readable.

6. Look on the website for homecoming events at USD. Choose an event that you would be most likely to attend and write that down. I won't make you actually go to the event but consider doing it, it builds school spirit.