

## IT\_120\_Module 5\_Lab\_4

## Exercise 1: Caesar Cipher

1. Encrypt the message MATH with the Caesar cipher with 4 as the key.

**Answer:** QEXL

I put the message MATH under Caesar Cipher on the website <https://cryptoclub.org/#vAllTools> and put 4 as the key and encrypted the message.

2. Encrypt the message CRYPTO with the Caesar cipher with 6 as the key.

**Answer:** IXEVZU

I put the message CRYPTO under Caesar Cipher on the website <https://cryptoclub.org/#vAllTools> and put 6 as the key and encrypted the message.

3. The message QIIX PEXIV was encrypted using the Caesar cipher with 4 as the key. Decrypt the message.

**Answer:** MEET LATER

I put the Ciphertext under Caesar Cipher on the website <https://cryptoclub.org/#vAllTools>. I put different values of key till I got the right plaintext and the correct key used for this decryption is 4.

4. The message SKKZ NKXK was encrypted using a Caesar cipher. Decrypt the message.

**Answer:** MEET HERE

I put the Ciphertext under Caesar Cipher on the website <https://cryptoclub.org/#vAllTools>. I put different values of key till I got the right plaintext and the correct key used for this decryption is 6.

## Exercise 2: Vignere cipher`

1. Encrypt FOLLO WTHEY ELLOW BRICK ROAD with the keyword OZ.

**Answer:** TNZKC VHGSX SKZNK AFHQJ FNOC

I put the plaintext FOLLO WTHEY ELLOW BRICK ROAD under Vignere Cipher on the website <https://cryptoclub.org/#vAllTools> and put OZ as the keyword and encrypted the message.

2. Decrypt LOSVW AZBSH DHQID ARSLG EL, encrypted with the Vignere cipher using SHOES as a key

**Answer:** THERE IS NO PLACE LIKE HOME

I put the ciphertext LOSVW AZBSH DHQID ARSLG EL under Vignere Cipher on the website <https://cryptoclub.org/#vAllTools> and put SHOES as the keyword and clicked on quick answer to get the encrypted message. The message encrypted was “there isnop lacel ikeho me” and I arranged the words to make it make sense.

### Exercise 3: Breaking the Caesar Cipher

1. Decrypt the message encrypted with a Caesar cipher: PAXG LAHNEW B KXMNKG

**Answer:** When should I return.

I used the tool Crack substitution on the website <https://cryptoclub.org/#vAllTools> and entered my ciphertext. After clicking crack, I was provided with letter frequencies. To crack the substitution cipher, I used the letter frequencies, patterns in English, or patterns in the cipher table to help and made changes until the message made sense. I also tried doing it using key where I input different values of key until I got the right answer. The key is 19.

2. Decrypt the message encrypted with a Caesar cipher: QUCN ZIL U JBIHY WUFF

**Answer:** Wait for a phone call.

I used the tool Crack substitution on the website <https://cryptoclub.org/#vAllTools> and entered my ciphertext message. After clicking crack, I was provided with letter frequencies. To crack the substitution cipher, I used the letter frequencies, patterns in English, or patterns in the cipher table to help and made changes until the message made sense. I also tried doing it using key where I input different values of key until I got the right answer. The key is 20.

3. Decrypt the message encrypted with a Caesar cipher: GUR ENOOGV PENJYRQ BHG BS VGF UBYR

**Answer:** the rabbit crawled out of its hole.

I used the tool Crack substitution on the website <https://cryptoclub.org/#vAllTools> and entered my ciphertext message. After clicking crack, I was provided with letter frequencies. To crack the substitution cipher, I used the letter frequencies, patterns in English, or patterns in the cipher table to help and made changes until the message made sense. I also tried doing it using key where I input different values of key until I got the right answer. The key is 13.

4. Decrypt the message encrypted with a Caesar cipher:

MAXLX TKXGM MAXWK HBWLR HNKXE HHDBG ZYHK

**Answer:** These aren't the droids you're looking for.

I used the tool Crack substitution on the website <https://cryptoclub.org/#vAllTools> and entered my ciphertext message. After clicking crack, I was provided with letter frequencies. To crack the substitution cipher, I used the letter frequencies, patterns in English, or patterns in the cipher table to help and made changes until the message made sense. I also tried doing it using key where I input different values of key until I got the right answer. The key is 19 and the message I got is "these arent thedroids you're looking for" and arranged the words.

## Exercise 4: Breaking the Vignere Cipher`

1. Decrypt the following message, which was encrypted with a Vignere cipher of length 4: `

BCRRBCQORHKEPSLSLCWRWXXDESPEZMPYQWCEBCBOSFHCIZHSQVWHCBRWR  
VLNEGDRCKRRQS.

**Answer:** Do or do not – there is no try. Judge me by size do you? Reckless is he. Now things are worse.

I used the Crack Vigenere Tool on the website <https://cryptoclub.org/#vAllTools> and put the ciphertext, key length and clicked on crack. After that, I was provided with 4 groups and I started with group 1. I turned the wheel to match the decryption above the letter in the message and repeated the process till I got the correct plaintext.

2. Decrypt the following message, which was encrypted with a Vignere cipher of length 4: `

KBPYU BACDM LRQNM GOMLG VETQV PXUQZ LRZNM GOMLG VETQV PXYIM  
HDYQL BQUBR  
YILRJ MTEGW YDQWE GUPGC UABRY ILRJM XNQKA MHJXJ KMYGV ETQVP  
XCRWV FQNBL  
EZXBW TBRAQ MUCAM FGAXY UWGMH TBEJB BRYIL RJMLC CAHLQ NWYTS  
GCUAB RYILR  
JMLNT QGEQN AMRMB RYILR JMPGP BXPQN WCUXT GT

**Answer:** It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness,  
it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of  
Darkness, it was the spring of hope, it was the winter of despair.

I used the Crack Vigenere Tool on the website <https://cryptoclub.org/#vAllTools> and put the ciphertext, key length and clicked on crack. After that, I was provided with 4 groups and I started with group 1. I turned the wheel to match the decryption above the letter in the message and repeated the process till I got the correct plaintext.

## Exercise 5

Use what you know to decrypt the following message. Note, the original word spacing is intact:

LKZB RMLK X JFAKFDEQ AOBXOV TEFIB F MLKABOBA TBXH XKA TBXOV LSBO  
JXKV X NRXFKQ  
XKA ZROFLRP SLIRJB LC CLODLQQBK ILOB TEFIB F KLAABA KBXOIV KXMMFKD  
PRAABKIV  
QEBOB ZXJB X QXMMFKD XP LC PLJB LKB DBKQIV OXMMFKD OXMMFKD XQ JV  
ZEXJYBO  
ALLO Q FP PLJB SFPFQBO F JRQQBOBA QXMMFKD XQ JV ZEXJYBO ALLO LKIV  
QEFB XKA KLQEFKD JLOB

**Answer:** Once upon a midnight dreary while I pondered weak and weary over many a quaint  
and curious volume of forgotten lore while I nodded nearly napping suddenly

there came a tapping as of some one gently rapping ,rapping at my chamber door t is some visitor I muttered tapping at my chamber door only this and nothing more.

I put the ciphertext under Caesar Cipher on the website <https://cryptoclub.org/#vAllTools> and entered different values of key to decrypt the message till I got a message with made sense. The key which decrypted the ciphertext is 23.