

## CRYPTANALYSIS PROBLEM

### What is frequency analysis? (Definition)

Frequency analysis is the study of the distribution of the letters in a text. Analysis of frequencies help decrypting substitution-based ciphers using the fact that some letters apparitions are varying in a given language: in English, letters E, T or A are common while Z or Q are rare.

### How to use frequency analysis?

Frequency analysis allows decrypting a text by comparing letters frequencies in a plain text message with letters frequencies in a ciphered message.

For this challenge problem I want you to create a program that reads in the data below (crypto.txt). Where the first number is the number of sentences and then produce a sorted listed (descending) order of the frequency of the letters in the sentences

Input: (**crypto.txt**)

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This is a test.

Count me 1 2 3 4 5.

Wow!!!! Is this question easy?

Output:

S 7

T 6

I 5

E 4

O 3

H 2

A 2

N 2

U 2

W 2

M 1

Q 1

C 1

Y 1

What to learn more. Go here: <https://www.dcode.fr/frequency-analysis>