

TEAM

SET

1

Shift Cipher

It is a mono-alphabetic cipher wherein each letter of the plain text is substituted by another letter to form the ciphertext. It is the simplest form of substitution cipher scheme,

The concept is to replace each alphabet by another alphabet which is 'shifted' by some fixed number between 0 and 25.

For this type of scheme, both the sender and receiver agree on a 'secret shift number' for shifting the alphabet. This number which is between 0 and 25 becomes the **key** of encryption.

The plaintext letter is encrypted to the ciphertext letter by shifting each letter in the plaintext with the letter present in the **keyth** position for that letter. Say, we are to encrypt the text "CAESAR" by a **shift** of **3**. Thus, the value of **key** is **3** in this case.

The ciphertext alphabets for the plaintext alphabets will then be,

Plaintext Alphabet	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Ciphertext Alphabet	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C

Following the above table, "CAESAR" becomes "FDHVDU". You are to ignore any characters other than letters. All the other special characters such as " " (space), ".", etc. do not form a part of the encryption technique and hence should be ignored while decrypting. For example, "CAESAR CAESAR" becomes "FDHVDU FDHVDU". See, how the spaces are not encrypted.

For qualifying this round, you will be provided with an encrypted text. Your job, will be to find the correct **key** value, and hence decrypt the given encrypted text.

Remember, you may opt to skip this round, but this option won't be available to you in the first 30 mins and you will get a penalty of 2.5 points.

Your encrypted text is,

Q SECFKJUH MEKBT TUIUHLU JE RU SQBBUT YDJUBBYWUDJ YV YJ SEKBT TUSUYLU
Q XKCQD YDJE RUBYULYDW JXQJ YJ MQI XKCQD

Write the decrypted text below.