
Exercise 1: Caesar Cipher

1. Encrypt the message MATH with the Caesar cipher with 4 as the key.
2. Encrypt the message CRYPTO with the Caesar cipher with 6 as the key.
3. The message QIIX PEXIV was encrypted using the Caesar cipher with 4 as the key. Decrypt the message.
4. The message SKKZ NKXK was encrypted using a Caesar cipher. Decrypt the message.

Exercise 2: Vignère cipher

1. Encrypt FOLLO WTHEY ELLOW BRICK ROAD with the keyword OZ.
2. Decrypt LOSVW AZBSH DHQID ARSLG EL, encrypted with the Vignère cipher using SHOES as a key.

Exercise 3: Breaking the Caesar Cipher

1. Decrypt the message encrypted with a Caesar cipher: PAXG LAHNEW B KXMNKG
2. Decrypt the message encrypted with a Caesar cipher: QUCN ZIL U JBIHY WUFF
3. Decrypt the message encrypted with a Caesar cipher: GUR ENOOVG PENJYRQ BHG BS VGF UBYR
4. Decrypt the message encrypted with a Caesar cipher:
MAXLX TKXGM MAXWK HBWLR HNKXE HHDBG ZYHK
5. What happens when you encrypt the message BEAM ME UP with a Caesar cipher of shift 16, and then encrypt the ciphertext with a shift of 10?

Exercise 4:

1. What do you think are the most common letters in English?

2. What do you think are the least common letters in English?

3. Use the table below to make your own substitution ciphers. Can you crack other people's ciphers?

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

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

Exercise 5

Is it possible to use the ciphertext to guess anything about the key? Explain your answer using some ciphertexts.: