

ROT13 Cipher

A Simple Caesar Cipher Twist: ROT13 (rotate by 13) is a specific type of Caesar cipher with a fixed shift value of 13.

Shifting by 13: Each letter in the message is replaced with the letter 13 positions ahead in the alphabet. If it goes beyond 'Z', it wraps around to the beginning.

Minimal Security: Due to the small shift and limited alphabet, ROT13 offers "weak encryption" and is easily cracked. It's more for obfuscation than true secrecy.

Common Uses:

ROT13 is often used for spoilers online, making the text unreadable at first glance.

In forums and chatrooms, it can be used to hide potentially offensive language.

Decoding Methods:

Recognizing the ROT13 pattern (shifted letters by 13).

Using online tools or manual decryption (shifting back 13 positions).

Formula (equivalent to Caesar cipher with $n=13$):

Encryption: $\text{En}(x) = (x + 13) \bmod 26$

Decryption: $\text{Dn}(x) = (x - 13) \bmod 26$

Here,

" x " represents the position of the letter in the alphabet ($A=0, B=1, \dots, Z=25$)

" $\bmod 26$ " ensures the result stays within the alphabetical range (0-25)

Since ROT13 always uses a shift of 13 ($n=13$), this formula simplifies the Caesar cipher formula for this specific case.

