Walkthrough – Descramble

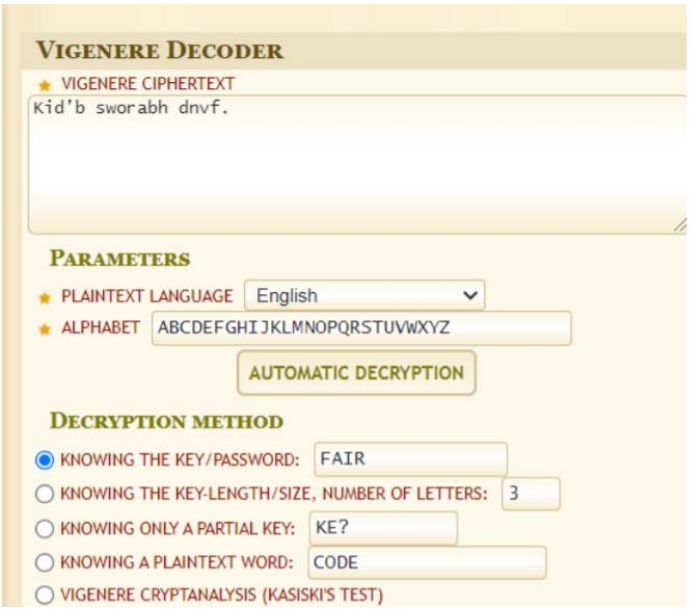
Challenge

Upon reading the question description, you might think that the acronym CVA could stand for something else, instead of counter villainy agency. You would be correct, each letter in the acronym is a hint towards all the cipher decryption schemes you would need to employ to successfully decrypt the cipher text. These ciphers are, in the order needed to apply them: Caesar, Vigenère, and Autoclave. We can apply these ciphers in a more efficient manner by using an online decoder: https://www.dcode.fr

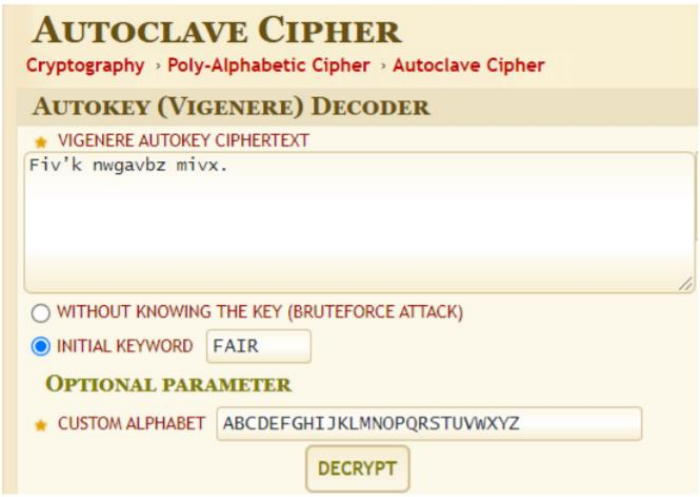
Solution

1. Although the cipher techniques are now known to us, there is still something else we need to consider for the Caesar cipher. We need to figure out the specific shift number that will lead us on the correct path. Through some trial and error, you would find that the correct shift number is denoted by the number of spaces in between every string in the encrypted text.

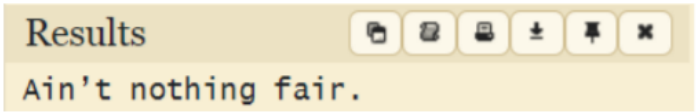
2. Get the result of the Caesar cipher decryption and input it into the Vigenère cipher for decryption. This is where the answers to the riddles will come into play. They serve as a key/password for the cipher to properly decrypt the results from the Caesar cipher decryption that we did earlier. This password entered will be dependent on which of the three descramble challenges is being attempted.



3. Once we have the result of the Vigenère decryption we put it into the autoclave cipher for decryption, like so:



This should give us the flag.



Note that the steps for all the descramble challenges are the same with different keys for each.

The keys can be found below:

	Descramble 1	Descramble 2	Descramble 3
Caesar	2	12	7
Vigenère	Fair	Mind	Dear
Autoclave	Fair	Mind	Dear

Final Answer	QCTF-{Ain't_nothing_fair.}	QCTF-{Dream,_not_of_what_you_are,_but_of_what_you_want_to_be.}	QCTF-{Frankly,_my_dear,_I_don’t_give_a_damn.}