

# Walkthrough – Decrypt

## Challenge

The first thing you see when you load up the program is the yes/no to begin the questions. Type in yes to get the first question. As you answer each question correctly, you will be given a piece of the flag to put together at the end.

## Solution

1. The first question you get reads: wvdioehetrmronhspitetunefc. This question is encoded in what is called a columnar transposition. This one specifically is organized in a 5x5 matrix that looks like so:

w	h	o	i	n
v	e	n	t	e
d	t	h	e	f
i	r	s	t	c
o	m	p	t	e
r				

When you read down the columns, it creates the encrypted message, but if you read across the rows, it reads the decrypted message: *who invented the first computer?*

The answer for this is: Charles Babbage

2. The second question that comes up is: *mjty dwfgut ldixr yu fftg nu eh hsba hsuu tst bxweu?*

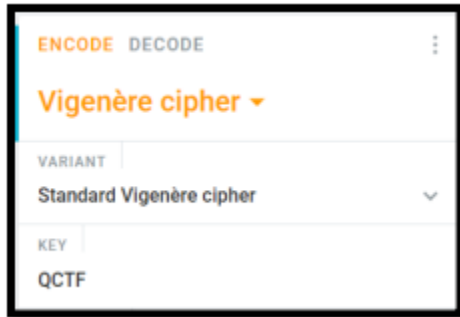
This is a Vigenère Cipher. This type of cipher is very similar to a Caesar Cipher, the difference is that a Vigenère Cipher uses a key to shift the letters. In this case, the key used to shift the phrase is: QCTF.

There are many online tools that are used to decrypt ciphers, the one being used here is <https://cryptii.com/>.

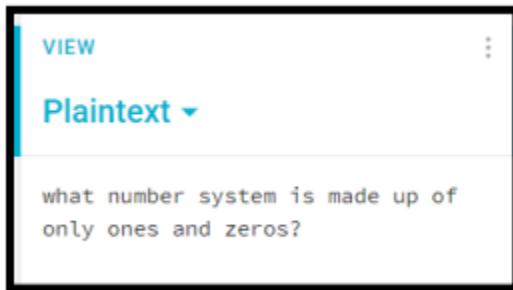
First, you'll want to copy the cipher text into the section to be decoded:



Next, make sure you enter the key correctly to shift by:



And then when you press decode, you will get the answer:



The answer to this question is: *Binary*.

3. The third and final question that is given is  
`V2hhdCB3YXMgdGhlIGZpcnNOIGNvbXB1dGVyIGNhbgxIZD8=`

The hint here is the = at the end of the phrase. This is Base64 code. You can go through the steps provided for the second question to use a decoder to decrypt this sentence using Base64 as the encoding language.

This translates to: *what was the first computer called?*

The answer to this question is: ENIAC.

Enter these values to find the flag.