

Q1 Commands

10 Points

List the commands used in the game to reach the ciphertext.

1. Go
2. Go
3. Read

Q2 Cryptosystem

10 Points

What cryptosystem was used in this level?

Vigenere cipher

Q3 Analysis

20 Points

What tools and observations were used to figure out the cryptosystem?

NOTE: Failing to provide proper analysis would result in zero marks for this assignment.

The cipher text looked like a substitution cipher was used, but when we did the frequency analysis, no pattern was found. So it was clear that no monoalphabetic cipher is used. we guessed it should be Polyalphabetic Cipher. so we assumed that cipher was vigenere and did the repeated sequence analysis. in the analysis, we found that "cjj", "jjw", "cjn" etc. repeat after 20 spaces. so the key length should be a factor of 20. and we also remembered that the clue was given in the shape of caveman which has 10 (a factor of 20) levels of lines horizontally. This supports the fact vigenere cipher is used with the key length of 10.

reference- <https://sandilands.info/crypto/ClassicalCiphers.html>

Q4 Decryption Algorithm

15 Points

Briefly describe the decryption algorithm used. Also mention the plaintext you deciphered. (Use less than 350 words)

We found the clue that Bow, and then slowly look up. Count the number of lines in horizontal dimension. when we slowly look up then first we count the last row which had 9 line then 2 then 9 and so on. so we found 9292552221. As the key is of length 10, So we break the cipher text in 10-10 letters block. then in each block 1st letter is moved 9 places backward, 2nd letter 2 places, 3rd 9 places and similarly we done for rest of the text and found the plain text as:
"Be wary of the next chamber, there is very little joy there. Speak out the password
"the_cave_man_be_pleased" to go through. May you have the strength for the next chamber. To find the exit, you first will need to utter magic words there."

Q5 Password

10 Points


What was the final command used to clear this level?

the_cave_man_be_pleased

Q6 Codes

0 Points

Upload any code that you have used to solve this level

 No files uploaded

Q7 Team Name

0 Points

team_9