



Problem 6. «Alice in the Tweedleworld»

Tweedledum and Tweedledee lived on opposite sides of the city and were very lonely; they often sent each other letters and postcards, and wished each other happy holidays. Alice worked as a postman, and she was lonely as well, so she secretly read those postcards.



Quite recently, Tweedledum and Tweedledee started to encrypt their messages. Alice could not figure out what was written there and decided to find a way to read them. Alice asked the Cheshire Cat to turn invisible and spy on what Tweedledee was writing to Tweedledum. One day he succeeded!

Cheshire Cat said that the text written by Tweedledee was the following:

How can I prove to you that I know secret word, without ever whispering a single syllable of the word itself?

After encryption Tweedledee obtained:

H I o p k w r o v u t c a n o w h e n s a l t o t e s p c d e e , v r r w i t e r e t i n g w h w o o a h r u t i d f s y i l t t i l a b h e n g l s e l w l e f e ? o s o r

This message was delivered by Alice to Tweedledum. After some time Tweedledum answered to Tweedledee with the ciphertext:

B o d l m e e n y l y a s t h a a t k r t i i h e n g d s r n s d w k e e e c e p c r e r , f o u i t l o d n g w o a r m a s t i s y o w I k u t h a y t l o n s u o d h o w u t e ! s

Please, help Alice to read what Tweedledum wrote and explain the encryption method.