



Task 3. «The Snowflake cipher»

Alice wants to encrypt some text using the Snowflake cipher. Encryption is described by the following algorithm:

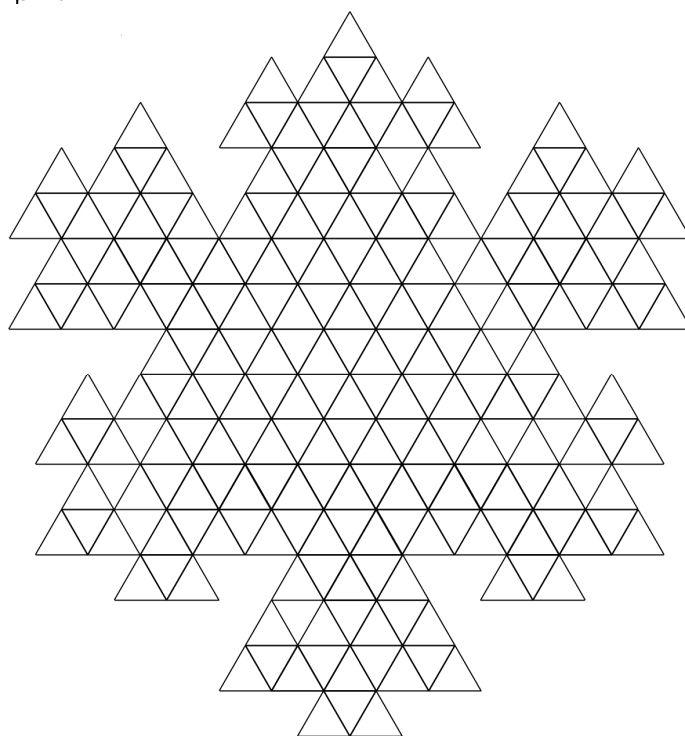
Step 1. Choose an arbitrary small triangle in the snowflake (see below);

Step 2. Put the first letter of your message into this triangle;

Step 3. Write the next letter of the message (without spaces) into an arbitrary empty neighbouring triangle. Neighbouring means having a common edge. Repeat this step until the end of message.

Step 4. After inserting of all the letters, write down the text from snowflake in horizontal order from top to bottom and left to right.

Determine what is the maximal possible length of a message that can be encrypted with the Snowflake cipher?



An example. We want to encrypt the message: LOOK HOW IT WORKS. As a result we can get the ciphertext: LHOWOOKITSKROW.

