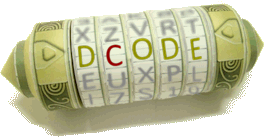
1. (1.5 points) Write a Python program to create another form of Caesar encryption.

In this form, the writer would write the message in a long strip of paper, and the recipient will wrap the message around a scepter. The letters that align in a line would be the secret message contained within.



1, Your program will first ask for the input of a secret message, note your program should be able to handle difference cases.

2, Your program will then break this secret messages into letters, and assign them to specific locations in another random message, pay attention to the length of the random message you generate.

3, Your program will next ask for the input of the nth place where you want to assign the letters of your secret message, note your program should check input.

4, Your generated random message should be truly random, e.g. throwing unexpected blank spaces to confuse the unintended reader.

5, Lastly write a decoder so that you can extract the secret message from the random output.

Example:

Secret message:

'show me the money'

nth letter choice:

3

Generate random output:

**prssrhamowuwue fqmc e t pxtsmh jeto bbmgjoo npqepvy**

2, (1.5 points) Another type of Caesar cypher is implemented by embedding the message.

1, Your program will first ask for the input of a secret message, note your program should be able to handle difference cases.

2, Your program will next ask for the jump of the n. So that the random message is read as n, n+n, n +n+n etc… when it reach the end of the message, it goes back to start at 1, n+1, n+n+1, etc… until all the letters are rearranged.

Example:

Secret message:

Kill the king tonight

Jump:

4

Random message:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Index | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Letter | t | n | i | k | h | g | g | i | e | t | h | l | k | o | t | l | i | n |
| Actual sequence | 5 | 10 | 15 | 1 | 6 | 11 | 16 | 2 | 7 | 12 | 17 | 3 | 8 | 13 | 18 | 4 | 9 | 14 |

4 8 12 16: kill

1 5 9 13 17: theki

2 6 10 14 18: ngton

3 7 11 15: ight

In sequence: killthekingtonight

(Hint: be strategic about how long the random message is, because it will affect how we read it. In the example, compare and observe how long the secret message is (without spaces), and how long the random message is)