

MysteryTwister C3

THE CRYPTO CHALLENGE CONTEST

FROM RUSSIA WITH LOVE

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Introduction

Sarah and Igor are exchange students. Sarah lives in Moscow while Igor is in Berlin. Sarah learns Cyrillic.

To keep their little secrets confidential, they encrypt their emails. They have exchanged the key in person. The key is formed from all the 26 letters of the Latin alphabet. The key is 26 letters long.

Example – Part 1

Sarah encrypts the following plaintext:

HEUTE REGNETE ES DEN GANZEN TAG

The key word DNJEPR is used to determine the first 6 letters of the ciphertext alphabet:

DNJEPRABCFGHIKLMQSTUVWXYZ

Assigning the plaintext letters to these permuted letters of the plaintext alphabet creates a simple monoalphabetic substitution.

The result is:

BPUTP QPAKPTP PS EPK ADKZPK TDA

Example – Part 2

Now she exchanges the Latin letters for Cyrillic ones

A=A B=Б C=Ц D=Д E=Е F=Ф G=Г H=X I=И J=Й K=К
L=Л M=М N=Н O=О P=П Q=Я R=Р S=С T=Т U=У V=В
W=Щ X=Ж Y=Ы Z=З

and sends the text to Igor:

БПУТП ЯПАКПТП ПС ЕПК АДКЗПК ТДА

Igor knows the key. So he can create the ciphertext alphabet and therefore, the plaintext.

Challenge

Igor receives an email from Sarah:

Ц М Г Г Й _ _ _ Д Б Й П _ _ _ Щ П Я Р Щ И _ _ _ Р Щ Я
Р _ _ _ О Щ Я Р М И К Щ И _ _ _ В М П _ _ _ И Д С Ц Р _ _ _ Б
М И З _ _ _ Щ Д И А М С Ц _ _ _ З Т _ _ _ Г Й Щ Я Щ И _ _ _
А П Щ Т Щ _ _ _ Х Д С Ц _ _ _ К Д С Ц _ _ _ З Т _ _ _ Я Д Г У
Щ Я Р Щ П _ _ _ Ц Д Щ П _ _ _ Д И _ _ _ Х Й Я Ф М Т _ _ _ З
Т _ _ _ Р П Щ А А Щ И _ _ _ Д И _ _ _ Г Д Щ О Щ _ _ _ К Щ
Д И Щ _ _ _ Я М П М Ц

Note: A blank has been inserted between letters and three underscores separate words in order to improve the readability.

Procedure

1. Exchange each Cyrillic letter in the ciphertext with the corresponding Latin letter.
Note: Some letters look the same in the Cyrillic and Latin alphabet, e.g., Т or М.
2. Decrypt (simple monoalphabetic substitution) the Latin words using the key that needs to be determined first.
3. Enter the solution: It is the sixteenth word of the plaintext.

Please enter the solution in CAPITAL letters!