

Affine Cipher Worksheet

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Affine Food

I've encrypted a favourite fod with affine cipher. The resulting ciphertext is IDNVC. The key I used was (R, N) . Using the Crypto Tools Worksheet, decrypt it.

Affine Mystery

1. If I gave you the same ciphertext but key (Q, N) , what does the ciphertext decrypt to? Something interesting happens. What is it and why does it happen?
2. This key is weird in other ways too. For example, encrypt the following two plaintexts using this key (Q, N) : NO and AB. What happens?
3. What is the essential problem with this key, as a property of its behaviour in the tables on the Crypto Tools Worksheet?
4. Which keys will cause similar problems?