

Dilation ciphers

Overview. You will decrypt a dilation cryptogram, and make a dilation alphabet table.

Things to do.

- Each of the one-word cryptograms below has been encrypted using a dilation. The key is given to the right of the cryptogram. Pick one, find the appropriate decryption key (use a mod-26 multiplication table), and decrypt the cryptogram.

	Cryptogram	Key
1.	DTIQGOO	21
2.	JKPDXCP	7
3.	NOCIFXKB	23
4.	GQKKMZGM	3
5.	YNUTWXE	9
6.	KSNKSHP	5

- Instead of encrypting and decrypting letter by letter, we could make a table showing the ciphertext equivalent of each plaintext letter. Here's such a table (called an *alphabet*) for a dilation cipher with a key of 11. The plaintext is on the bottom

A	T	M	F	Y	R	K	D	W	P	I	B	U	N	G	Z	S	L	E	X	Q	J	C	V	O	H
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z

Make an alphabet for the key you used in part 1. Use it to decrypt your cryptogram again, as a check.