Caeser Cipher



Cleartext: Maggie, Thursday, 7pm.

ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Caeser Cipher



Cleartext: Maggie, Thursday, 7pm.

ABCDEFGHIJKLMNOPQRSTUVWXYZ DEFGHIJKLMNOPQRSTUVWXYZABC

Pdjjlh, Wkxuvgdb, 7sp.

Letter frequencies in English text[†]



	%		%		%
E	13.1	D	4.1	G	1.4
T	9.0	L	3.6	В	1.3
0	8.2	C	2.9	\mathbf{V}	1.0
A	7.8	F	2.9	K	0.4
N	7.3	U	2.8	X	0.3
Ι	6.8	M	2.6	J	0.2
R	6.6	P	2.2	Q	0.1
S	6.5	Y	1.5	Z	0.1
H	5.9	W	1.5		

†Davies, D.W. & Price, W.L., "Security for Computer Networks", Wiley, 1989

Digrams and trigrams in English text[†]

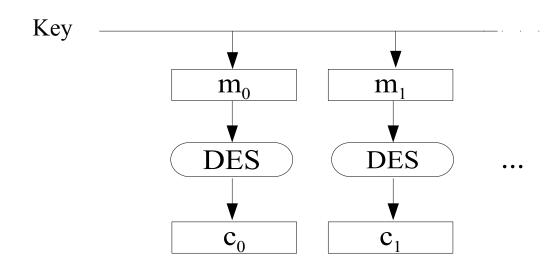


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†Davies, D.W. & Price, W.L., "Security for Computer Networks", Wiley, 1989

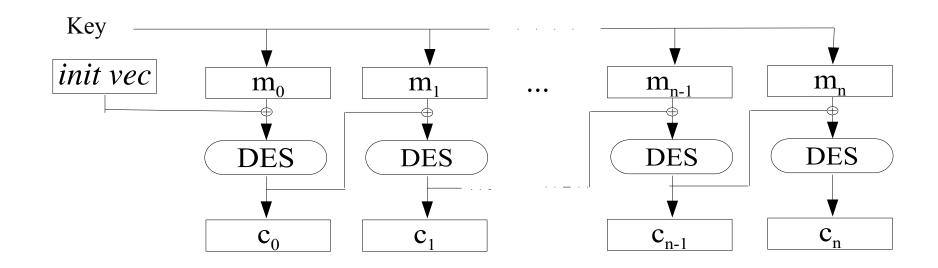
DES Encryption





DES CBC Mode





RSA



```
c = cryptotext

m = message

public key = (e,n)

private key = d
```

- $\bullet c = me \mod n$
- $\bullet m = cd \mod n$