

TEMA 5

⑤. Decriptati urmatorul text:

GABODQ NABEBOZZLBZON

• criptosist. afim pe blocuri de un caract.
(A-Z) alfabet

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$$\begin{array}{ll} a) & A \rightarrow B, \quad B \rightarrow E \\ & B \rightarrow A, \quad E \rightarrow B \end{array}$$

$$\begin{cases} a' \cdot B + b' = A \\ a' \cdot E + b' = B \end{cases} \rightarrow \begin{cases} a' \cdot 1 + b' = 0 \\ a' \cdot 4 + b' = 1 \end{cases} \quad (-)$$

$$3a' = 1 \rightarrow \underline{a' = 3^{-1} \pmod{26}}$$

$$X_{26} = (1, 0) \quad X_3 = (0, 1)$$

$$26 : 3 = 8, \text{ rest } 2 \Rightarrow X_2 = 8 \cdot X_{26} - 2 \cdot X_3 = (1, 0) - (0, 2) = (1, -2)$$

$$3 : 2 = 1, \text{ rest } 1 \rightarrow X_1 = X_3 - 1 \cdot X_2 = (0, 1) - (1, -2) = (-1, 3) \Rightarrow \underline{3^{-1} = 9}$$

Înloc. în sist.: $9 + b' = 0 \Rightarrow \underline{b' = -9 = 17}$
 $\underline{a' = 9}$

	G	A	B	O	D	Q	N	A	B	E	B	O	Z	Z	L	B	Z	O	N
c	6	0	1	14	3	16	13	0	1	4	1	14	25	25	11	1	25	14	13
	19	17	0	13	18	5	4	17	0	1	0	13	8	8	12	0	8	13	4
	T	R	A	N	S	F	E	R	A	B	A	N	i	i	M	A	I	N	E

~~(a+17)~~ Decriptarea este: TRANSFERA BANII MAINE.

$$(c \cdot 9 + 17) \bmod 26$$

$$\begin{array}{l} b) \quad A \rightarrow B, \quad E \rightarrow N \\ \quad \quad B \rightarrow A, \quad N \rightarrow E \end{array}$$

$$\begin{cases} a' \cdot B + b' = A \\ a' \cdot N + b' = E \end{cases} \rightarrow \begin{cases} a' \cdot 1 + b' = 0 \\ a' \cdot 13 + b' = 4 \end{cases} \quad (-)$$

$$12a' = 4 / : 4 \Rightarrow 3a' = 1$$

$$a' = 3^{-1} \pmod{26}$$

$$a' = 9 \Rightarrow b' = 17$$

Aceasi deciptate