

TUGAS 2
PRAKTIKUM KRIPTOGRAFI



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Enkripsikan nama lengkap anda menggunakan Affine Cipher dan kembalikan menjadi plainteks, $a=9$ $b=[2 \text{ digit NPM akhir}]$.

A	B	C	D	E	F	G	H	I	J	K	L	M
0	1	2	3	4	5	6	7	8	9	10	11	12

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
13	14	15	16	17	18	19	20	21	22	23	24	25

PlainText: MUHAMAD RUMI RIFAI

$A = 9$, $B = 26$

Key: 26

$[M, U, H, A, M, A, D] = [12, 20, 7, 0, 12, 0, 3]$

$[R, U, M, I] = [17, 20, 12, 8]$

$[R, I, F, A, I] = [17, 8, 5, 0, 8]$

Proses Enkripsi:

$[M, U, H, A, M, A, D] = [12, 20, 7, 0, 12, 0, 3]$

$E(12) = (9(12) + 26) \bmod 26 = 134 \bmod 26 = 4 = E$

$E(20) = (9(20) + 26) \bmod 26 = 206 \bmod 26 = 24 = Y$

$E(7) = (9(7) + 26) \bmod 26 = 89 \bmod 26 = 11 = L$

$E(0) = (9(0) + 26) \bmod 26 = 26 \bmod 26 = 0 = A$

$E(12) = (9(12) + 26) \bmod 26 = 134 \bmod 26 = 4 = E$

$E(0) = (9(0) + 26) \bmod 26 = 26 \bmod 26 = 0 = A$

$E(3) = (9(3) + 26) \bmod 26 = 53 \bmod 26 = 1 = B$

$[4, 24, 11, 0, 4, 0, 1] = [E, Y, L, A, E, A, B]$

$[R, U, M, I] = [17, 20, 12, 8]$

$E(17) = (9(17) + 26) \bmod 26 = 179 \bmod 26 = 23 = X$

$E(20) = (9(20) + 26) \bmod 26 = 206 \bmod 26 = 24 = Y$

$E(12) = (9(12) + 26) \bmod 26 = 134 \bmod 26 = 4 = E$

$E(8) = (9(8) + 26) \bmod 26 = 98 \bmod 26 = 20 = U$

$[23, 24, 4, 20] = [X, Y, E, U]$

$[R, I, F, A, I] = [17, 8, 5, 0, 8]$

$E(17) = (9(17) + 26) \bmod 26 = 179 \bmod 26 = 23 = X$

$E(8) = (9(8) + 26) \bmod 26 = 98 \bmod 26 = 20 = U$

$E(5) = (9(5) + 26) \bmod 26 = 71 \bmod 26 = 19 = T$

$E(8) = (9(8) + 26) \bmod 26 = 98 \bmod 26 = 20 = U$

$E(0) = (9(0) + 26) \bmod 26 = 26 \bmod 26 = 0 = A$

$[23, 20, 19, 20, 0] = [X, U, T, U, A]$

Hasil $E(x)$: **EYLA EAB XYEU XUTUA**