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Buatlah satu kalimat sederhana (min 3 kata & total min 15 huruf), enkripsikan dengan affine cipher dan kembalikan menjadi plaintext

Jawaban :

Enkripsi
Plaintext = **AKU ZAHRAN**

A = 5
B = 8

A K U => 0 10 20

- E(0) = (5(0) + 8) mod 26 = 8 mod 26 = 8 => I
- E(0) = (5(10) + 8) mod 26 = 58 mod 26 = 6 => G
- E(0) = (5(20) + 8) mod 26 = 108 mod 26 = 4 => E

Z A H R A N => 25 0 7 17 0 13

- E(0) = (5(25) + 8) mod 26 = 133 mod 26 = 3 => D
- E(0) = (5(0) + 8) mod 26 = 8 mod 26 = 8 => I
- E(0) = (5(7) + 8) mod 26 = 43 mod 26 = 17 => R
- E(0) = (5(17) + 8) mod 26 = 93 mod 26 = 15 => P
- E(0) = (5(0) + 8) mod 26 = 8 mod 26 = 8 => I
- E(0) = (5(13) + 8) mod 26 = 73 mod 26 = 21 => V

Hasil Enkripsi = **IGE DIRPIV**

Deskripsi
Text **= IGE DIRPIV**

Cari a’
GCD(a,m) = GCD(5,26)
26 = 5 (5) + 1
5 = 1 (5) + 0
t0 = 0, t1 = 1
t2 = (0 – (5(1)) mod 26 = -5 mod 26 = 21
a’ = 21 (21 x 5 kongruen terhadap 1 mod 26)
b’ = ((21) (8)) mod 26 = 168 mod 26 = 12

I G E => 8 6 4

- D(8) = (21 (8) – 12) mod 26 = 156 mod 26 = 20 => A
- D(6) = (21 (6) – 12) mod 26 = 114 mod 26 = 10 => K
- D(4) = (21 (4) – 12) mod 26 = 72 mod 26 = 20 => U

D I R P I V => 3 8 17 15 8 21

- D(3) = (21 (3) – 12) mod 26 = 51 mod 26 = 25 => Z
- D(8) = (21 (8) – 12) mod 26 = 156 mod 26 = 20 => A
- D(8) = (21 (17) – 12) mod 26 = 345 mod 26 = 7 => H
- D(8) = (21 (15) – 12) mod 26 = 303 mod 26 = 17 => R
- D(8) = (21 (8) – 12) mod 26 = 156 mod 26 = 20 => A
- D(8) = (21 (21) – 12) mod 26 = 429 mod 26 = 13 => N

Hasil Dekripsi = AKU ZAHRAN