

"El deseo de escribir aumenta a medida que se escribe"

Breathtaking \rightarrow R U P O T E N T O I F V } 12 letters

m \rightarrow unknown

Requires that $\frac{12}{m} \geq m$ so m can only be 1, 2, 3

This is necessary for resolve linear equation

In case m=3

Breathtaking corresponds [1, 17, 4, 0, 19, 7, 19, 0, 10, 8, 13, 6]

b \rightarrow 1
r \rightarrow 17
e \rightarrow 4
a \rightarrow 0
t \rightarrow 19
h \rightarrow 7
i \rightarrow 8
n \rightarrow 13
g \rightarrow 6

r \rightarrow 17
u \rightarrow 20
p \rightarrow 15
o \rightarrow 14
t \rightarrow 19
e \rightarrow 4
n \rightarrow 13
t \rightarrow 19
o \rightarrow 14
i \rightarrow 8
f \rightarrow 5
v \rightarrow 21

$$1a + 17b + 14c = 17$$

$$0a + 7b + 19c = 20$$

$$19a + 8b + 13c = 14$$

$$6a + 13b + 0c = 21$$

(mod 26)

↓

$$\textcircled{1} \quad a + 17b + 14c = 17$$

$$\textcircled{2} \quad 7b + 19c = 20$$

$$\textcircled{3} \quad 19a + 8b + 13c = 14$$

$$\textcircled{4} \quad 13b = 21$$

(mod 26)

Resolv $\textcircled{4}$

$$b = 63 \rightarrow 11 \pmod{26}$$

Resolv $\textcircled{2}$

$$7(11) + 19c = 20 \pmod{26}$$

$$19c = 15 \pmod{26}$$

Resolv $\textcircled{3}$

$$19a + 8(11) + 13c = 14 \pmod{26}$$

$$19a + 13c = 4 \pmod{26}$$

② equation

$$19c = 15 \pmod{26} \quad (\times 3)$$

$$c = 45 = 19 \pmod{26}$$

③ equation

$$19a + 13c = 4 \pmod{26}$$

$$19a + 13(19) = 4 \pmod{26}$$

$$19a = 7 \pmod{26}$$

Inverse multiplicative

$$19 \times 3 = 5 \pmod{26} \quad \times 3$$

$$a = 21 \rightarrow -5 \pmod{26}$$

Matrix

$$\begin{bmatrix} a & b & c \\ 11 & 17 & 19 \\ -5 & 1 & 11 \end{bmatrix}$$