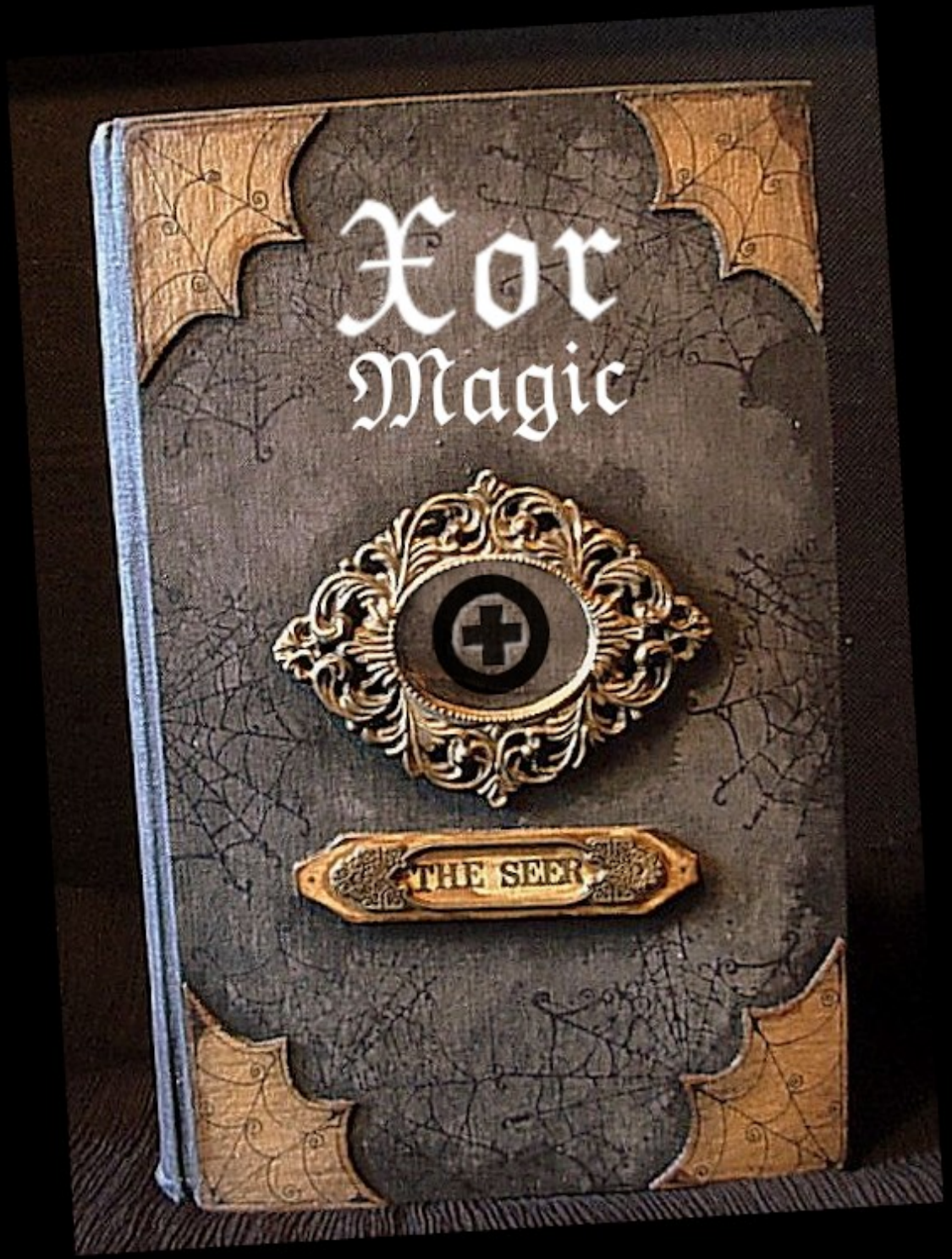
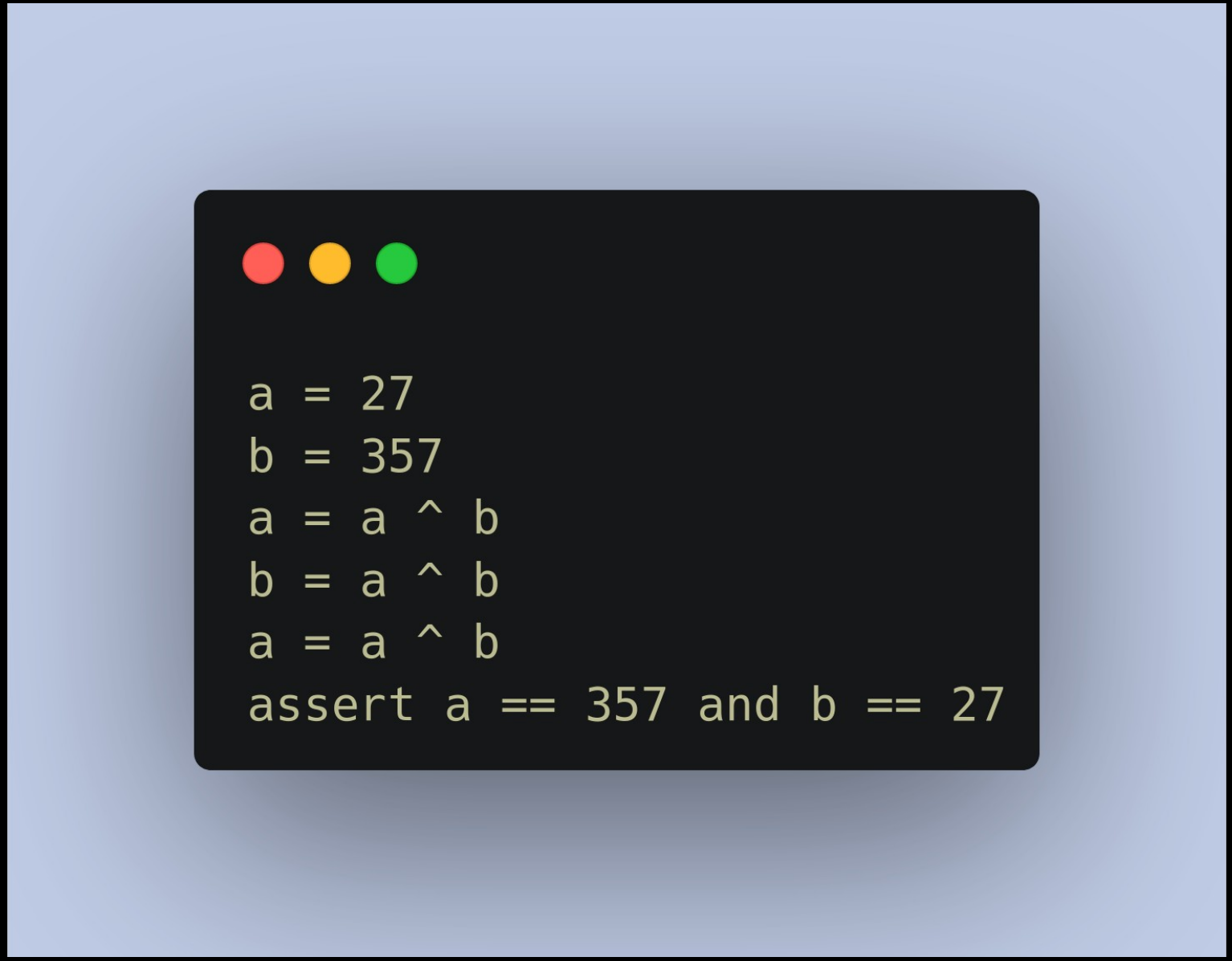

Xor
Magic
THE SEER

# MAGIA XORNIANA

# DÍA UNO

INTERCAMBIAR LOS VALORES DE DOS VARIABLES, SIN USAR VARIABLES INTERMEDIAS NI TUPLAS


a = 27
b = 357
a = a ^ b
b = a ^ b
a = a ^ b
assert a == 357 and b == 27

# MAGIA XORNIANA

b

| tiempo | código | a | b |
|---|---|---|---|
| 0 | a = A | A | |
| 1 | b = B | A | B |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# MAGIA XORNIANA

b

| tiempo | código | a | b |
|---|---|---|---|
| 0 | a = A | A | |
| 1 | b = B | A | B |
| 2 | a = a ^ b | A ⊕ B | B |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# MAGIA XORNIANA

b

| tiempo | código | a | b |
|---|---|---|---|
| 0 | a = A | A | |
| 1 | b = B | A | B |
| 2 | a = a ^ b | A ⊕ B | B |
| 3 | b = a ^ b | A ⊕ B | A ⊕ B ⊕ B |
| | | | |
| | | | |
| | | | |
| | | | |

# MAGIA XORNIANA

b

| tiempo | código | a | b |
|---|---|---|---|
| 0 | a = A | A | |
| 1 | b = B | A | B |
| 2 | a = a ^ b | A ⊕ B | B |
| 3 | b = a ^ b | A ⊕ B | A ⊕ B ⊕ B |
| | | | |
| | | | |
| | | | |
| | | | |

$$\begin{cases} X \oplus X = 0 \\ X \oplus 0 = X \end{cases}$$

# MAGIA XORNIANA

b

| tiempo | código | a | b |
|---|---|---|---|
| 0 | a = A | A | |
| 1 | b = B | A | B |
| 2 | a = a ^ b | A ⊕ B | B |
| 3 | b = a ^ b | A ⊕ B | A ⊕ B ⊕ B |
| 3 | | A ⊕ B | A |
| | | | |
| | | | |
| | | | |

$$\begin{cases} X \oplus X = 0 \\ X \oplus 0 = X \end{cases}$$

# MAGIA XORNIANA

b

| tiempo | código | a | b |
|---|---|---|---|
| 0 | a = A | A | |
| 1 | b = B | A | B |
| 2 | a = a ^ b | A ⊕ B | B |
| 3 | b = a ^ b | A ⊕ B | A ⊕ B ⊕ B |
| 3 | | A ⊕ B | A |
| 4 | a = a ^ b | A ⊕ B ⊕ A | A |
| | | | |
| | | | |

$$\begin{cases} X \oplus X = 0 \\ X \oplus 0 = X \end{cases}$$

# MAGIA XORNIANA

b

| tiempo | código | a | b |
|---|---|---|---|
| 0 | a = A | A | |
| 1 | b = B | A | B |
| 2 | a = a ^ b | A ⊕ B | B |
| 3 | b = a ^ b | A ⊕ B | A ⊕ B ⊕ B |
| 3 | | A ⊕ B | A |
| 4 | a = a ^ b | A ⊕ B ⊕ A | A |
| 4 | | B ⊕ A ⊕ A | A |
| | | | |

$$X \oplus X = 0$$
$$X \oplus 0 = X$$

# MAGIA XORNIANA

b

| tiempo | código | a | b |
|---|---|---|---|
| 0 | a = A | A | |
| 1 | b = B | A | B |
| 2 | a = a ^ b | A ⊕ B | B |
| 3 | b = a ^ b | A ⊕ B | A ⊕ B ⊕ B |
| 3 | | A ⊕ B | A |
| 4 | a = a ^ b | A ⊕ B ⊕ A | A |
| 4 | | B ⊕ A ⊕ A | A |
| 4 | | B | A |

$$X \oplus X = 0$$
$$X \oplus 0 = X$$

# TA-NIA-NA-NIAAAAAAAA!