

C

$$x = 1$$

$$V = 1 \Rightarrow W = 1 \Rightarrow x^T W = 0$$

return 0

$$x = \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}$$

$$V = 1 \ 1 \Rightarrow W = 1 \ 1 \Rightarrow x^T W = \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix} \begin{pmatrix} 1 \\ 1 \end{pmatrix} = 1$$

return 1

$$V = 1 \ 0 \Rightarrow W = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \Rightarrow x^T W = 1 \ 1$$

$$V = 1 \ 1 \Rightarrow x = 0 \ 0$$

$$x =$$

$$\underbrace{A B A D} \rightarrow$$

$$\begin{matrix} x & w \\ 8 & 8 \\ 1 & 1 \end{matrix} \cdot 300 = 2^{16} \cdot 300$$
$$\approx 10^3 \cdot 64 \cdot 300$$

$$2^8 = 256$$

$$|V| = \frac{2^8}{8} \approx 2^5 = 32$$

$$\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \\ & 0 & 1 & 0 & 1 \end{array} \rightarrow 1111$$

$$W \quad \begin{array}{cccccc} & \downarrow & & & & \\ 0 & 0 & 1 & 1 & 1 & 0 & 0 \end{array}$$

$$V \quad 11110000$$

$$\begin{array}{cccccc} \downarrow & & & & & \\ 1 & 0 & 0 & 0 & 0 & 1 & 1 & 1 \end{array} \xrightarrow{3}$$

10000000

01000000

AB AB

11 11
10 10 → 01 | 01
11 11

$P[k]$

2^k

$$P[3] = 15 + 16 \cdot 15 \\ = 15 \cdot 17 = 16^2 - 1 \\ = 255$$

$$P[0] = 1 \quad (1)$$

$$P[1] = 11, 10, 11 \quad (3)$$

$$P[2] = [111, 1010, 111], 1100, [], 1000, [] \\ 1100, [] \quad (15)$$

$$|P[k]| = |P[k-1]| + (|P[k-1]| + 1) \cdot |P[k-1]|$$

k

$$X = \underbrace{1100}_{X'} \underbrace{1100}_{X''}$$

$$\hat{X} = X' \wedge X''$$

$$P[k-1] \rightarrow S_i$$

$$\hat{X}_{\text{after}} = (X' \wedge S_i) \wedge (X'' \wedge S_i) = X' \wedge X''$$

$$S_i = \underbrace{S_i + S_i}_{1 \dots 1}$$

$$S_i + \underbrace{0000}_0$$

$$0 \ S_i \ 0000$$

$$0000 \ S_i$$