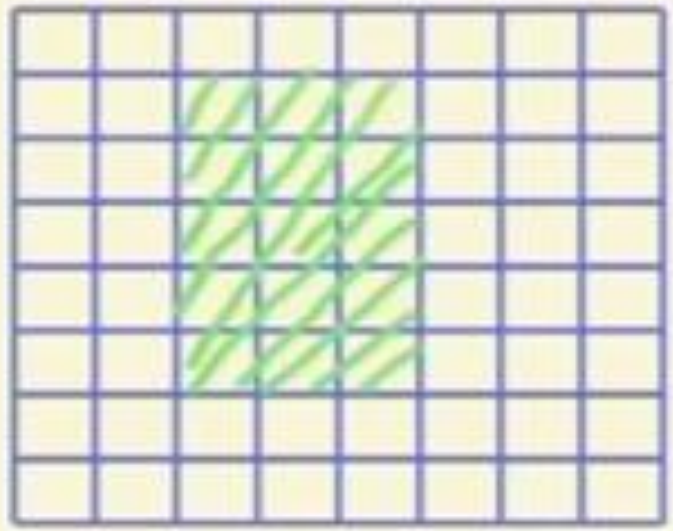
Erosion

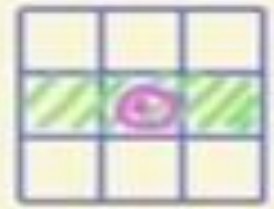
X B

$$X \ominus B = \{p \in Z^2 \mid p + b \in X \text{ for every } b \in B\}$$

Erosion

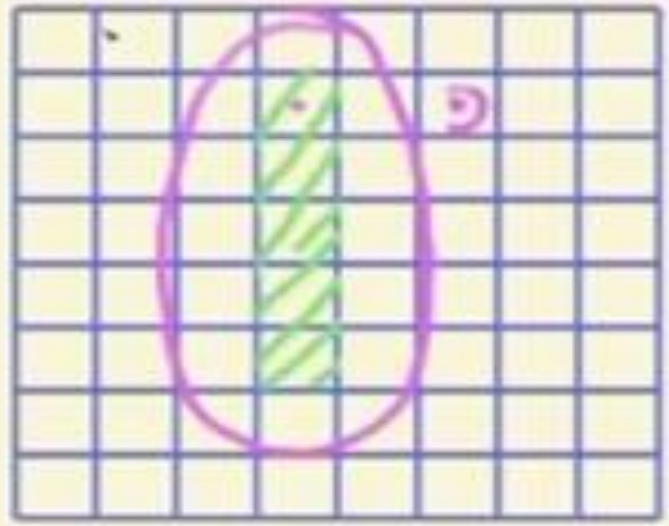


X

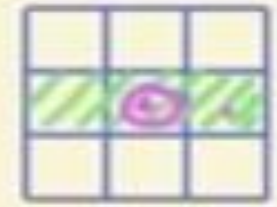


B

Erosion



X



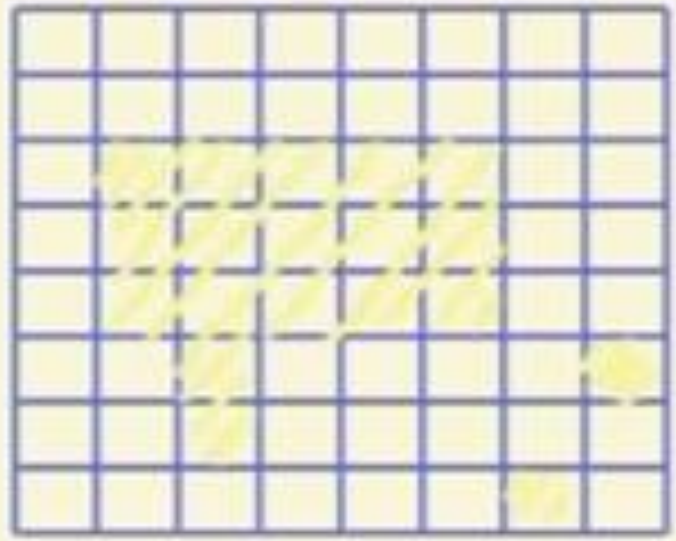
B

$(-1,0)$ $(1,0)$

$X \ominus B$

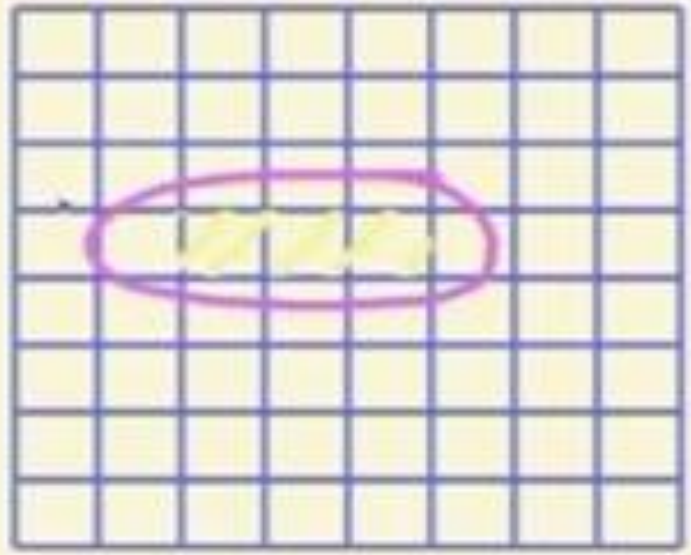
$$\{p \mid p+b \in X, \forall b \in B\}$$

Erosion



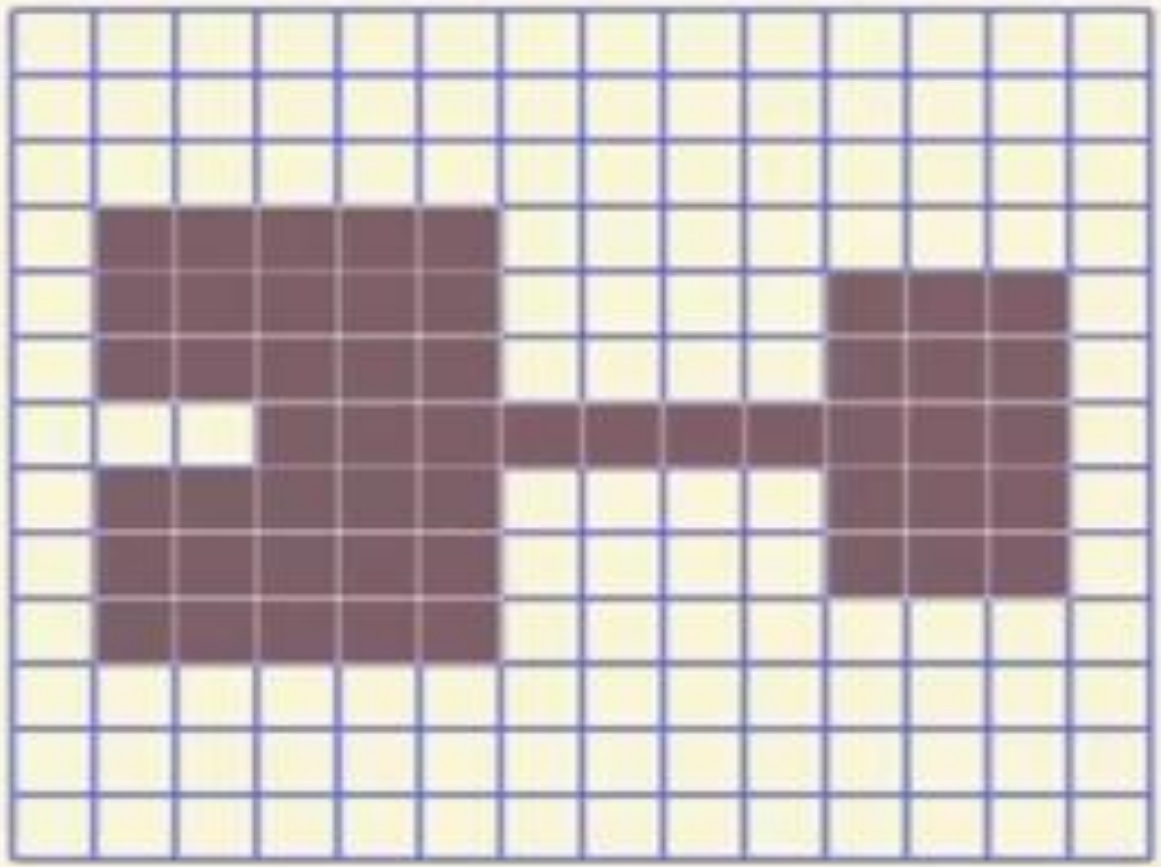
B

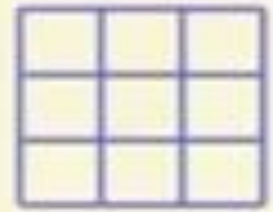
Erosion



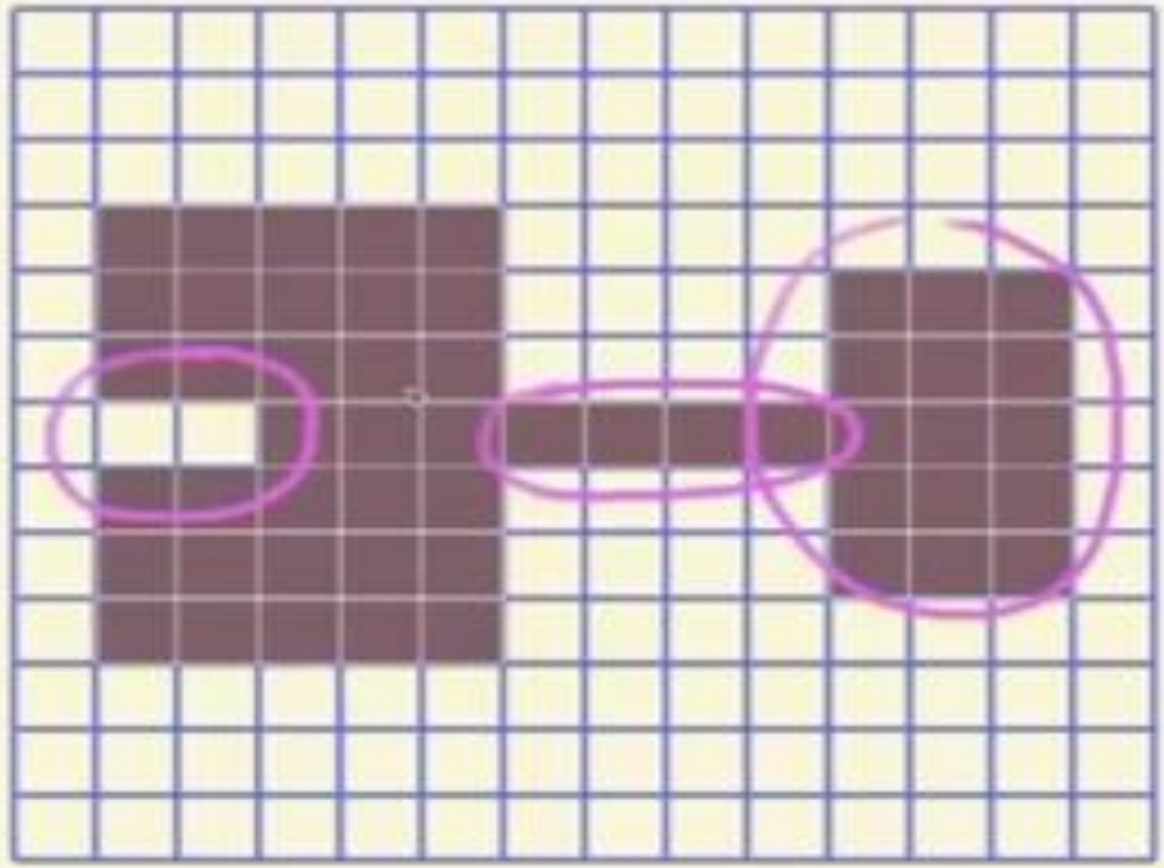
B

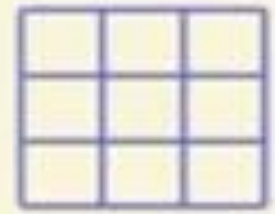
Closing / Opening



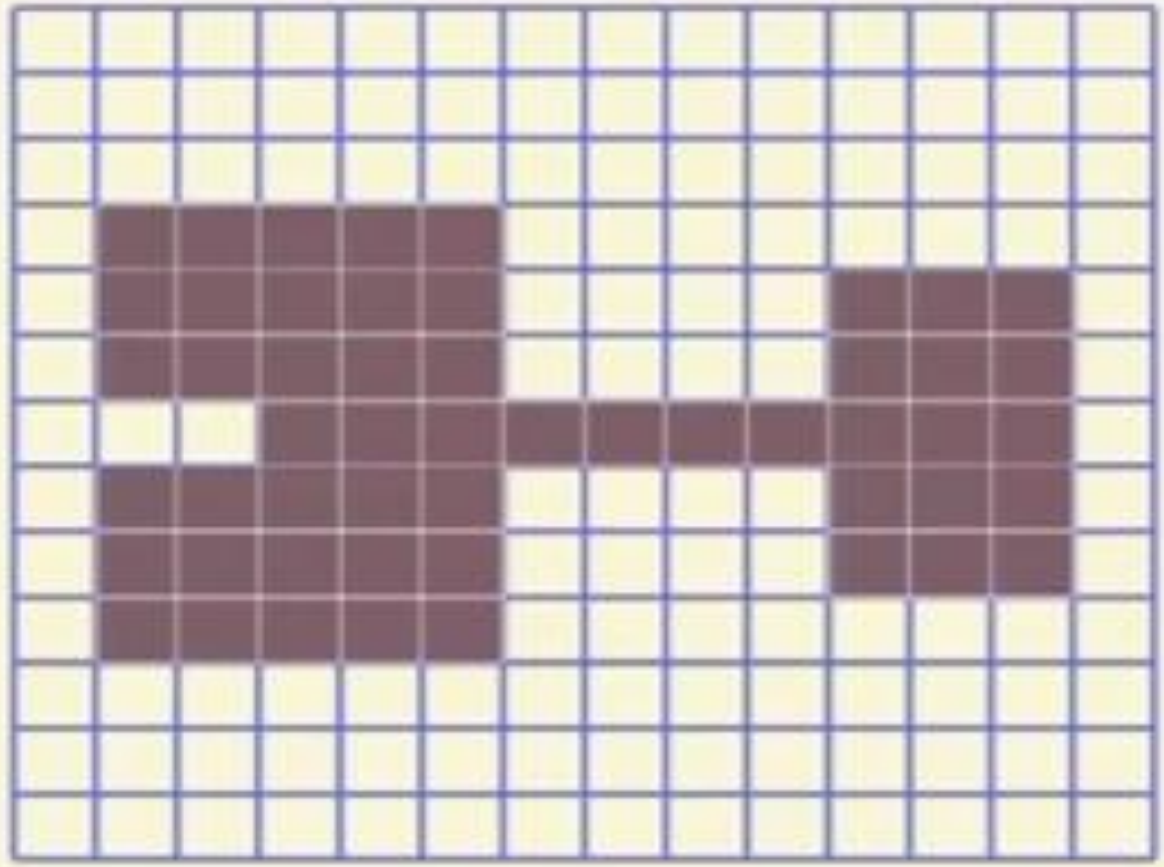


Closing / Opening



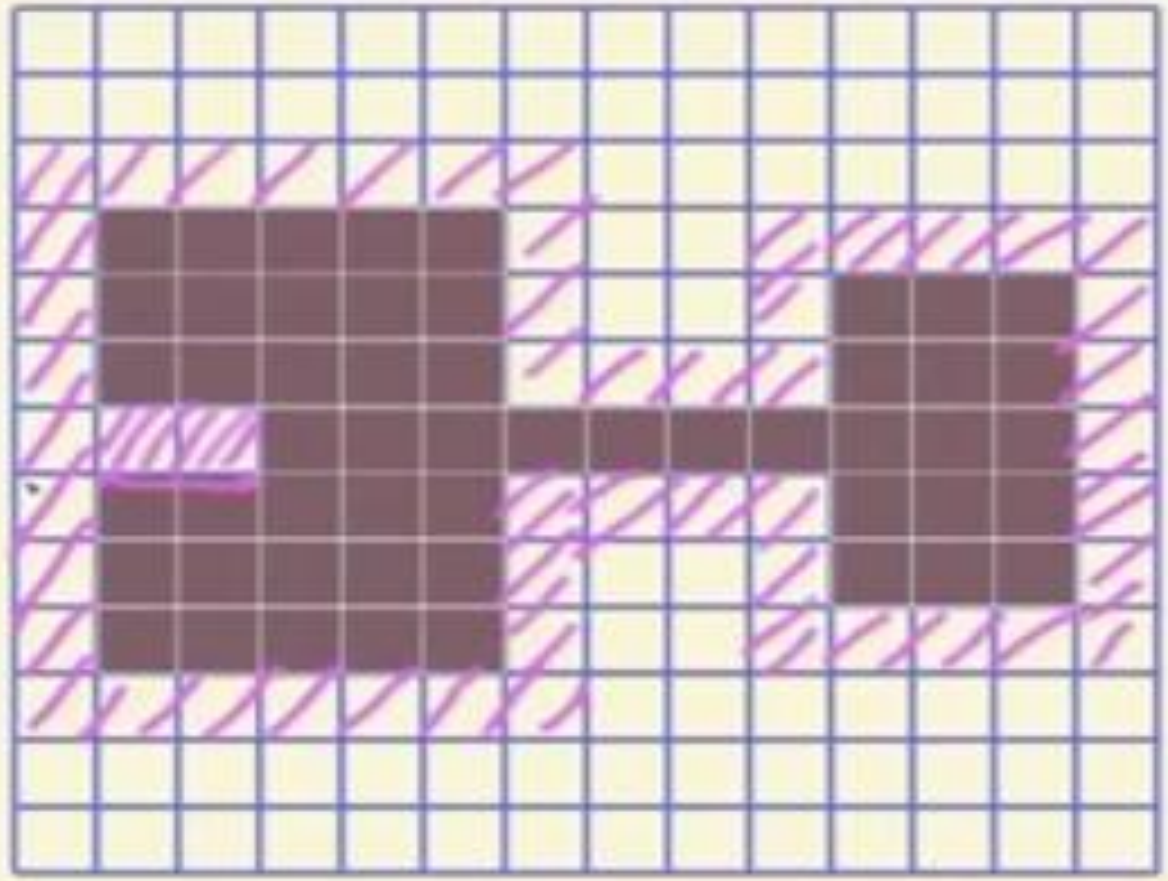


Closing / Opening



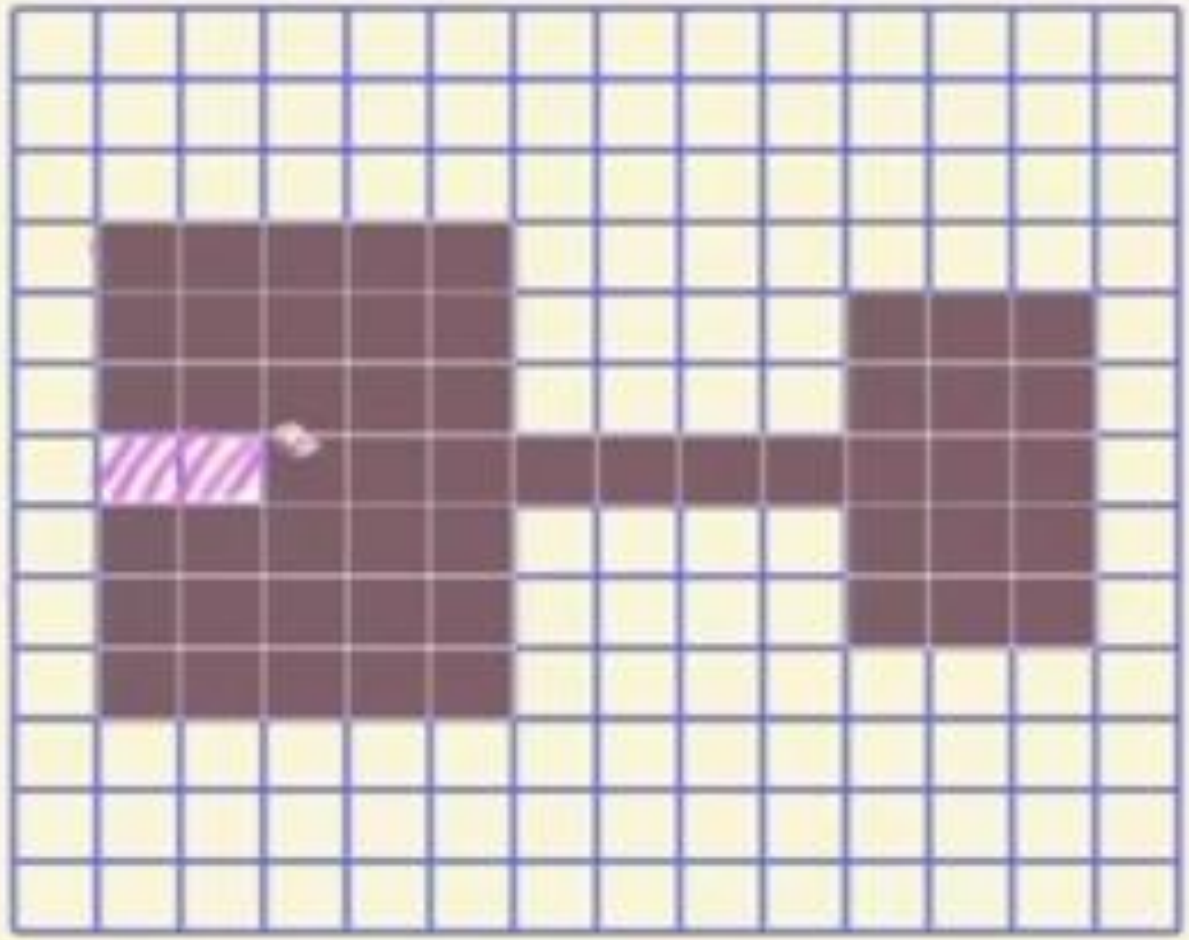
B

Closing / Opening



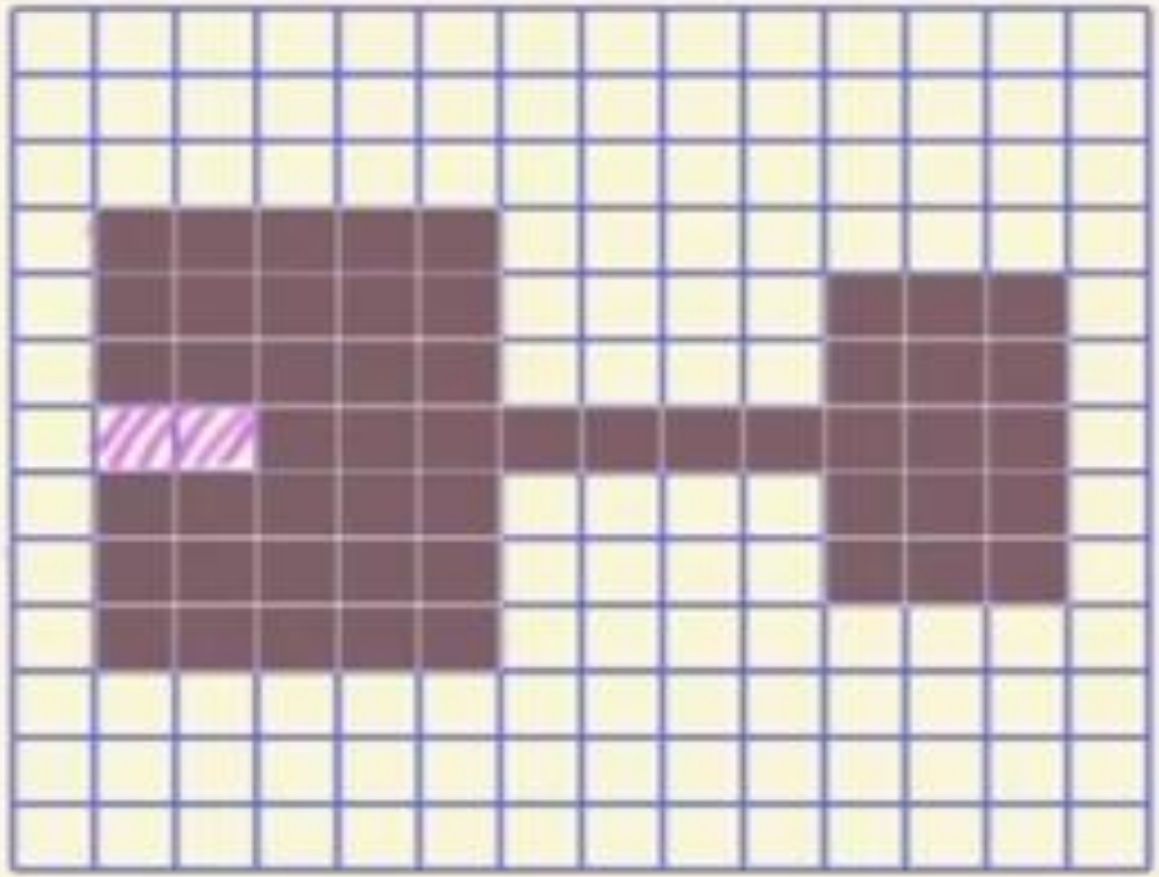
B

Closing / Opening



B

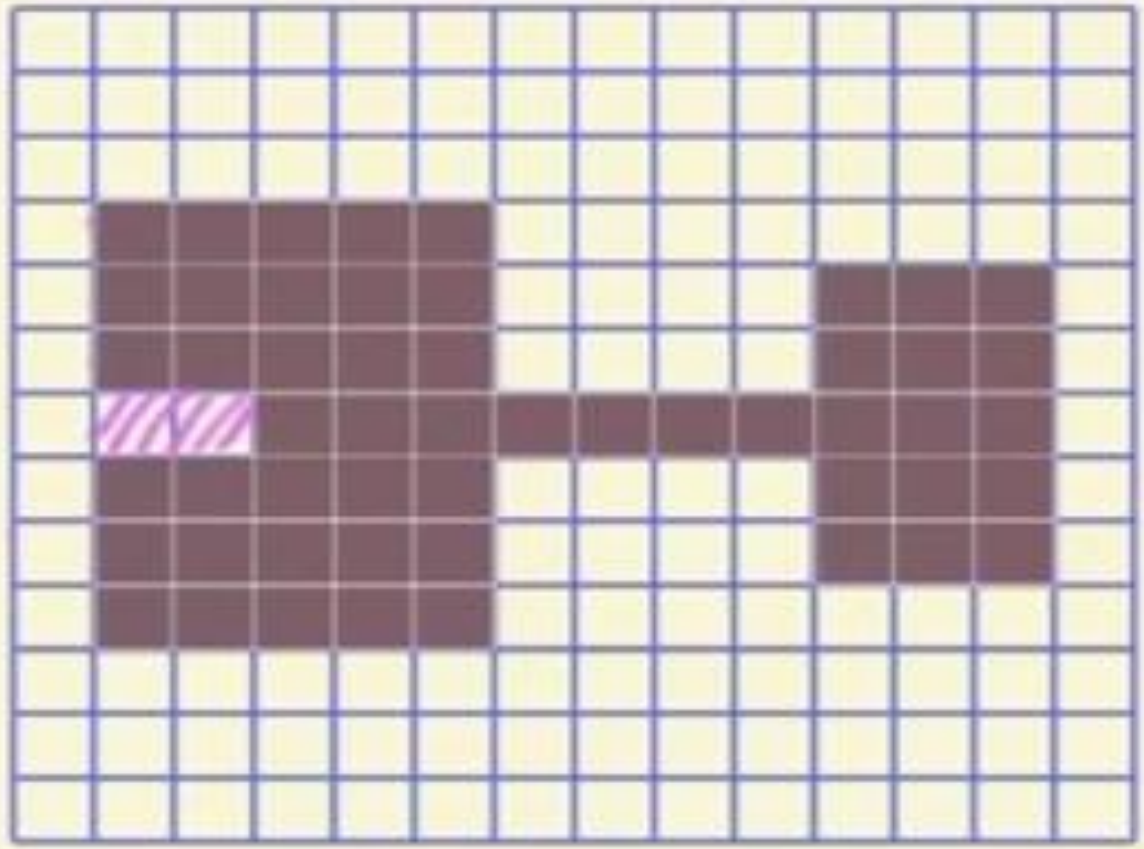
Closing / Opening



B

$(x \oplus B) \in B$

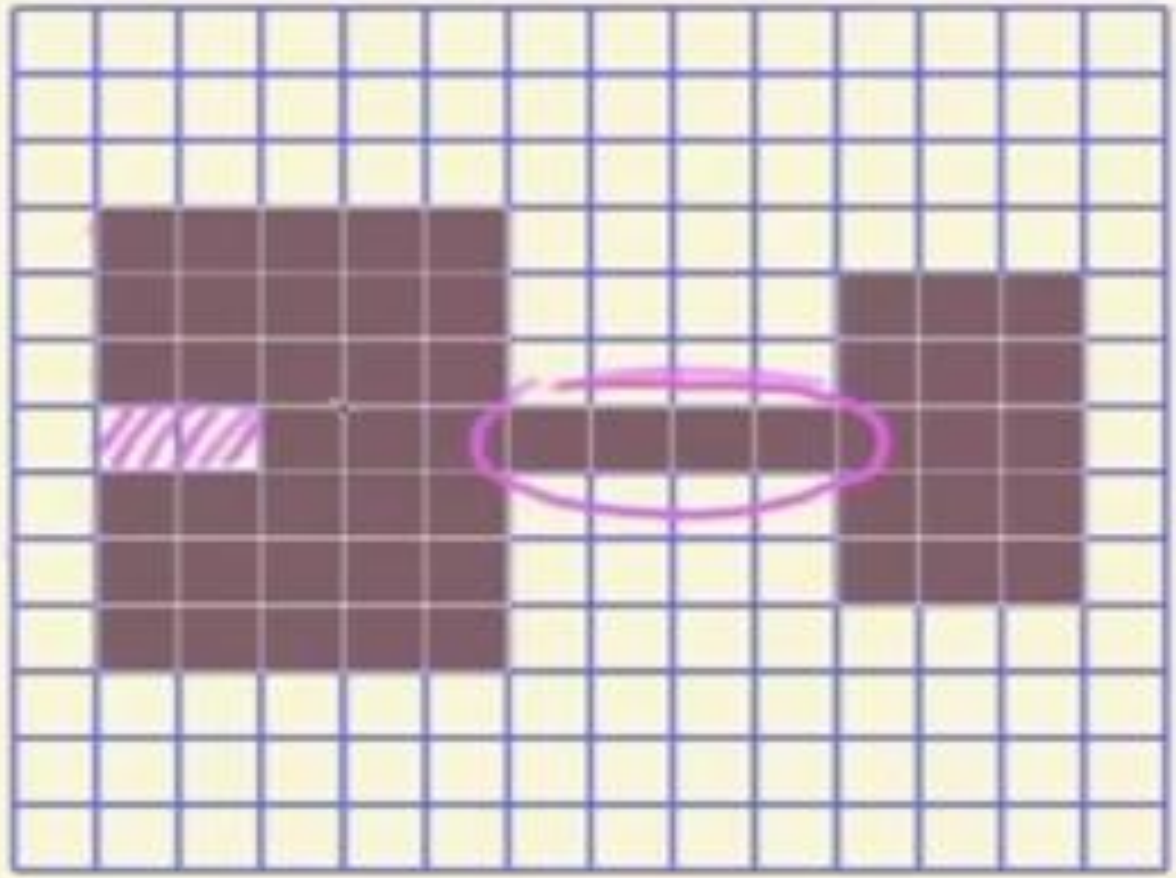
Closing / Opening



B

$X \cdot B \cdot (X \oplus B) \subset B$

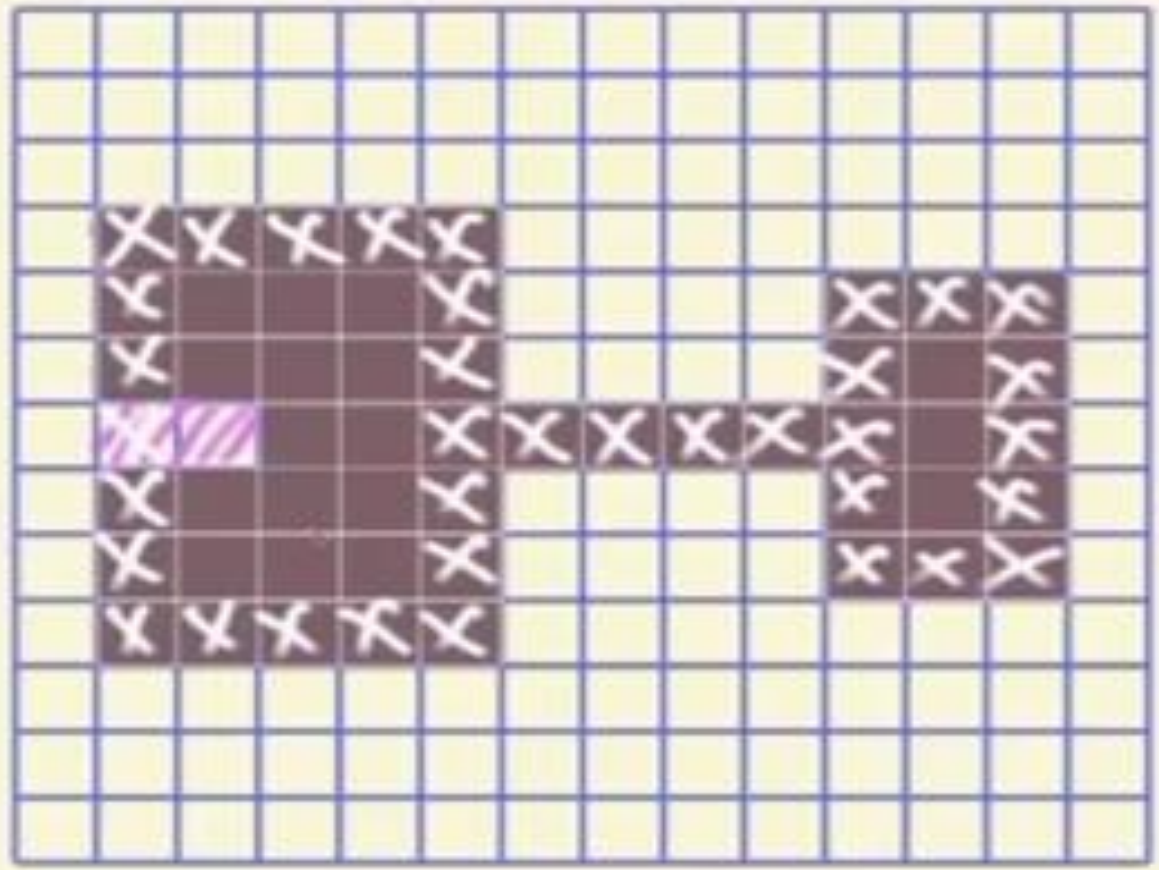
Closing / Opening



B

$x \cdot B = (x \oplus B) \ominus B$

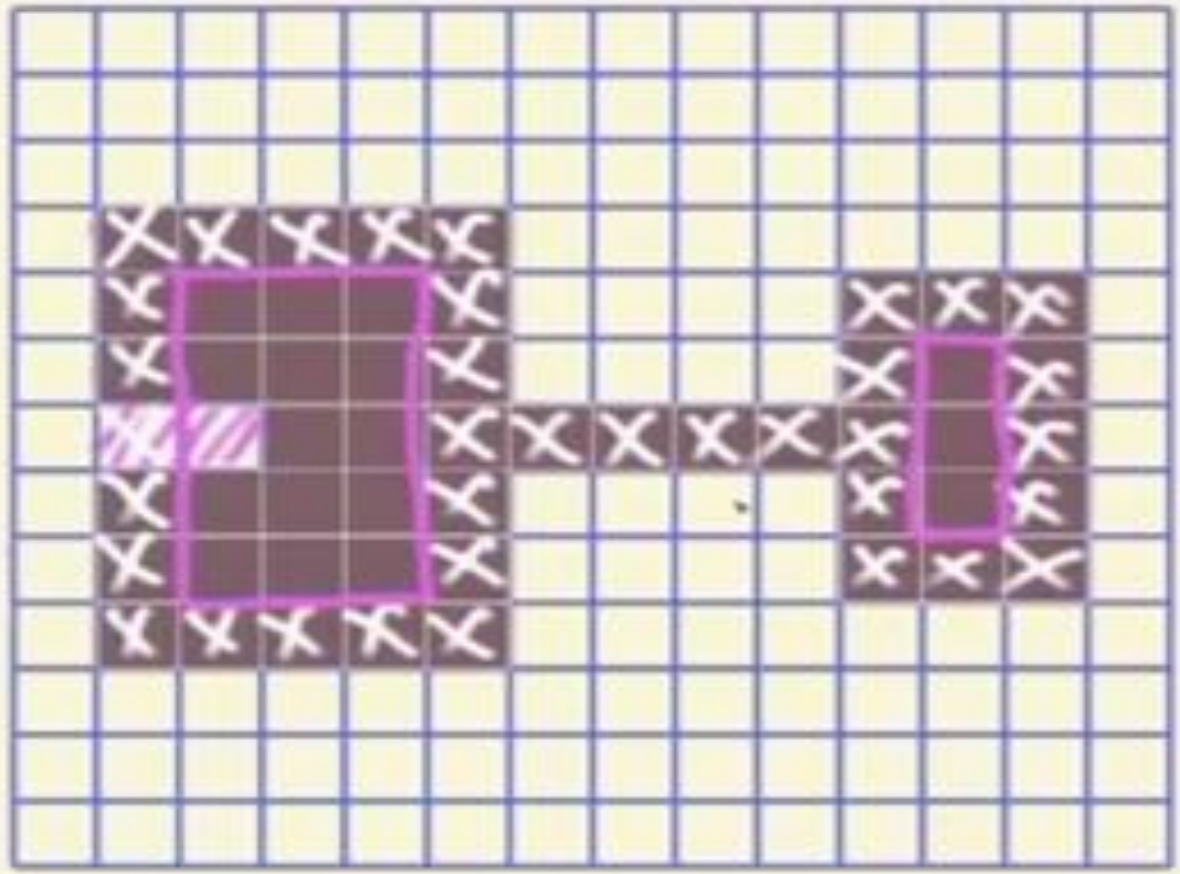
Closing / Opening



B

$X \cdot B = (X \oplus B) \ominus B$

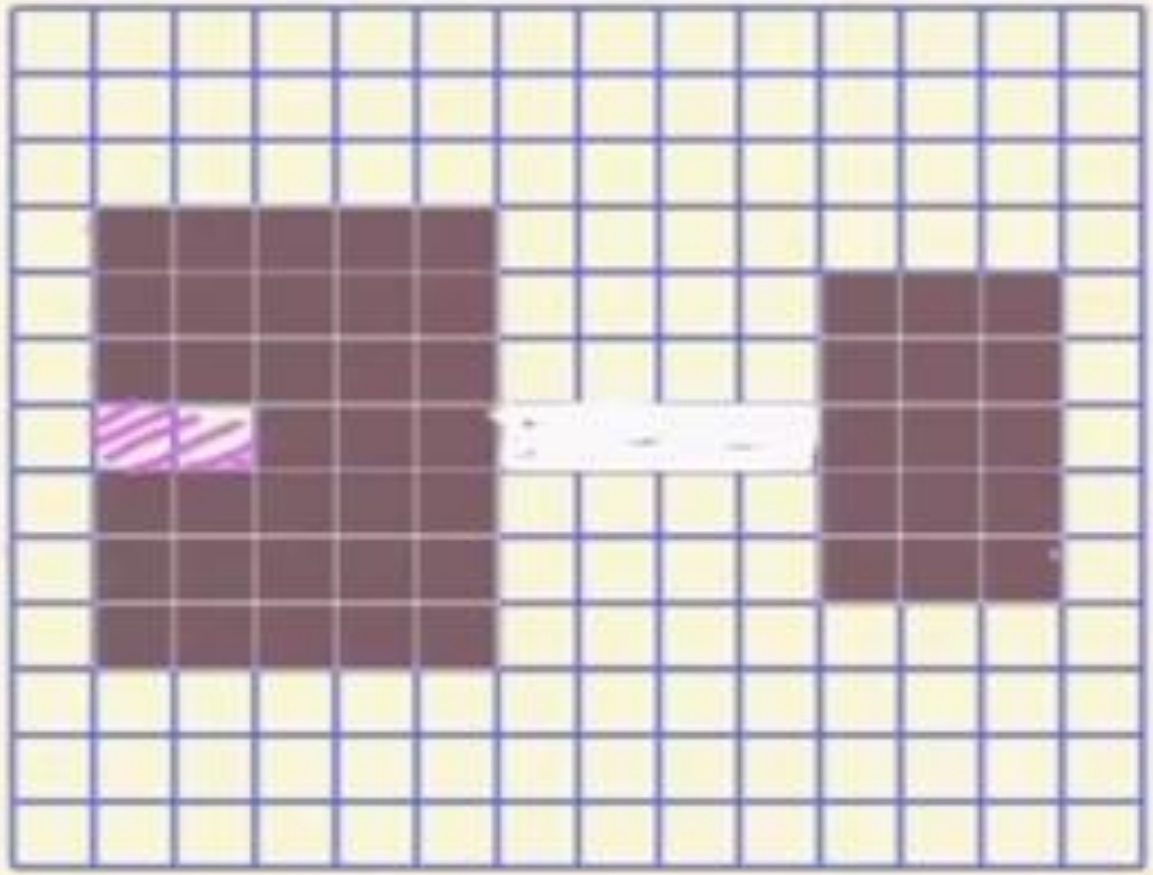
Closing / Opening



B

$X \cdot B = (X \oplus B) \ominus B$

Closing / Opening

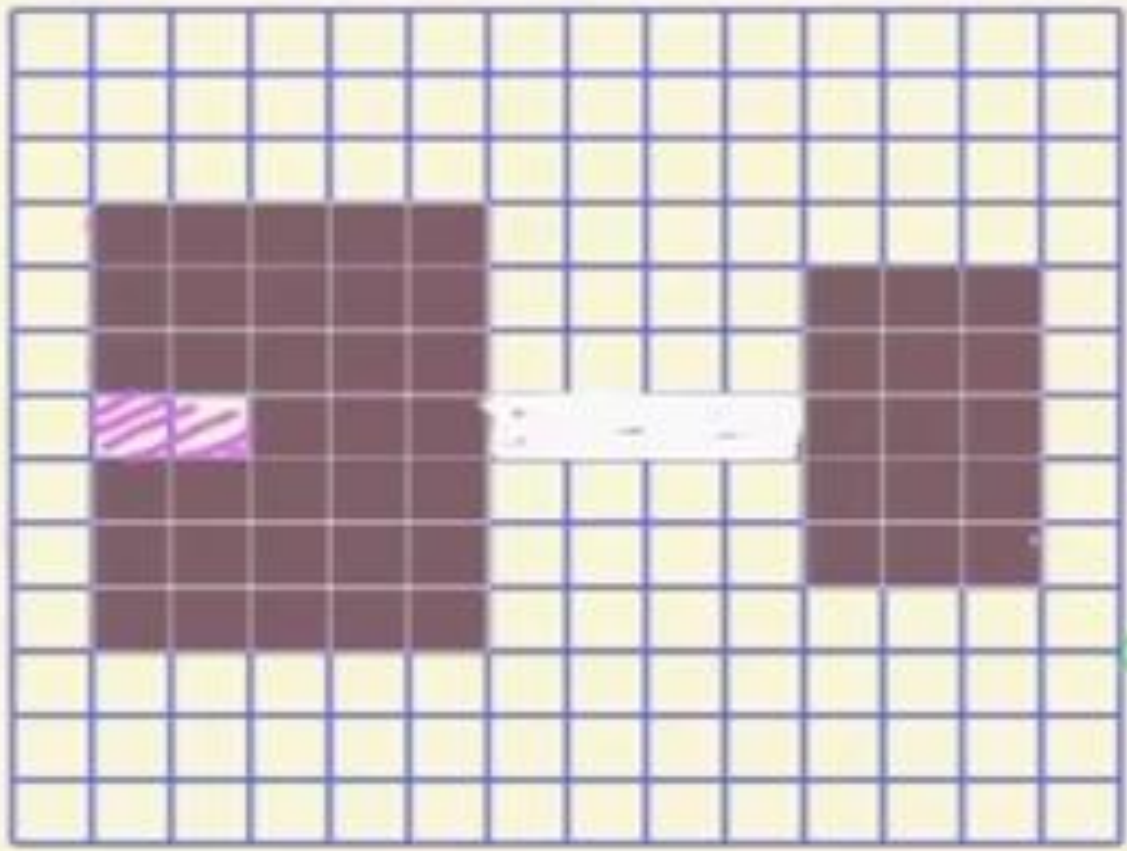


B

$X \cdot B = (X \oplus B) \ominus B$

$(X \ominus B) \oplus B$

Closing / Opening

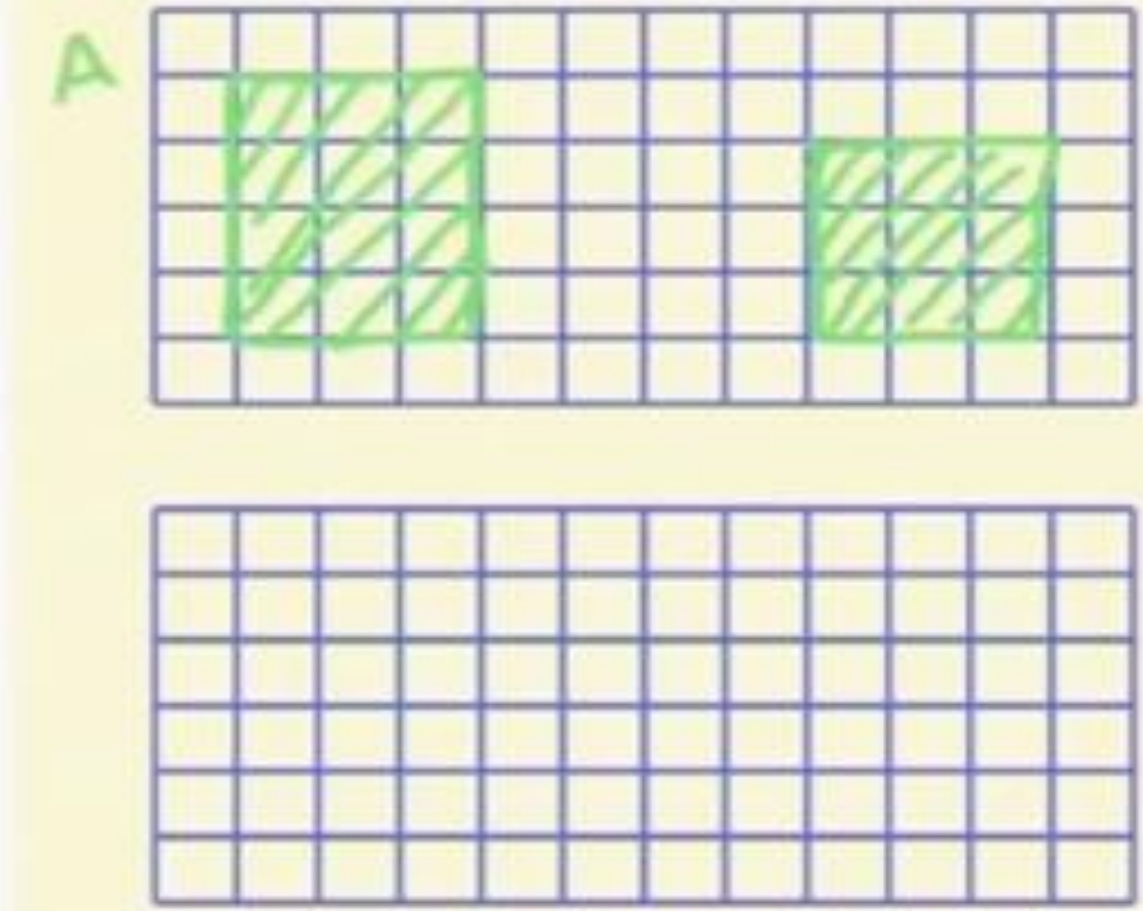


B

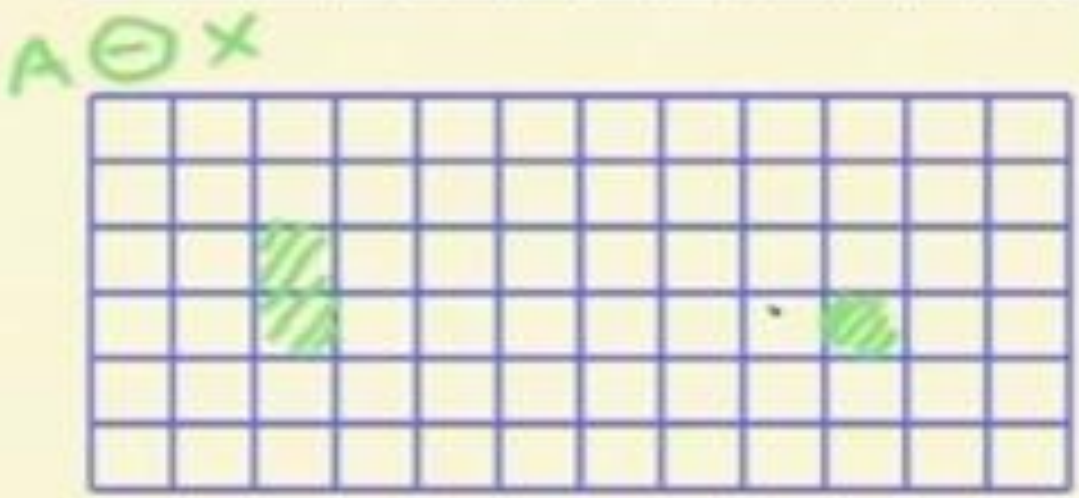
$X \cdot B = (X \oplus B) \ominus B$

$X \circ B = (X \ominus B) \oplus B$

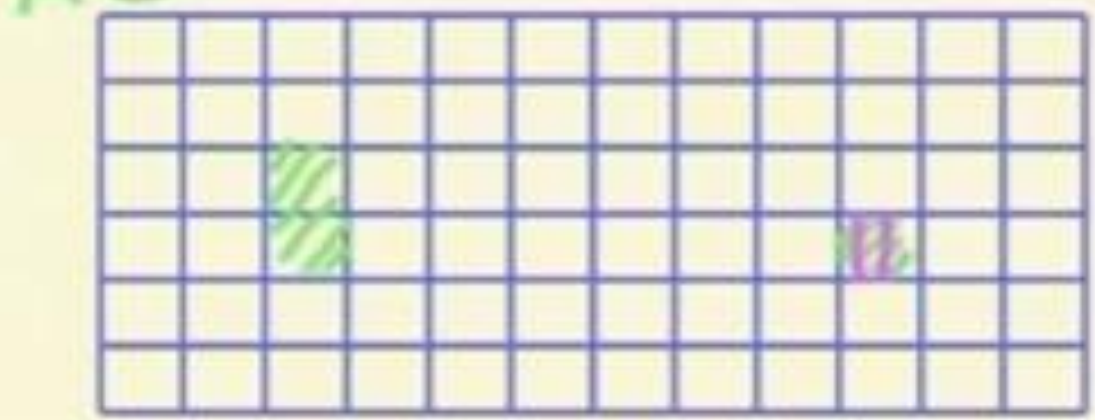
Hit-or-Miss Transform



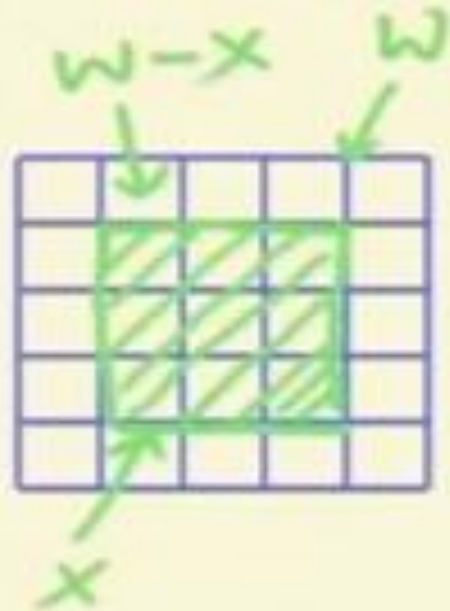
Hit-or-Miss Transform



Hit-or-Miss Transform



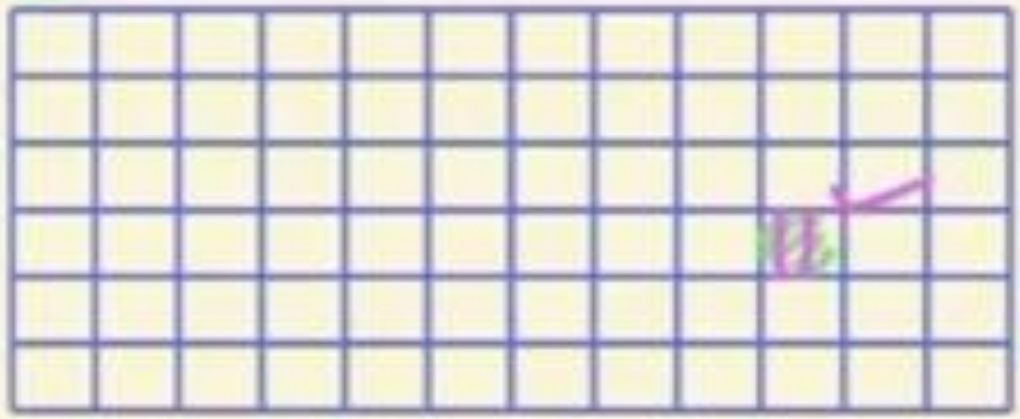
$A^c \ominus (w - x)$



Hit-or-Miss Transform

$A^c \ominus (W - X)$

$A \ominus X$



$(A \ominus X) \cap A^c \ominus (W - X)$

$$B = (B_1, B_2)$$

$$A \circledast B = (A \ominus B_2) \cap (A^c \ominus B_2)$$