## Dilation with Dilation center as non-origin



## Dilation with Dilation center as origin



Scale factor: SF Pre-Image Point: $\left(x_{p}, y_{p}\right) \quad$ Center of dilation: $\left(x_{c}, y_{c}\right)$ Image Point: $\left(\mathrm{x}_{\mathrm{im}}, \mathrm{y}_{\mathrm{im}}\right.$ )

Dilation Rule: Image coordinates $=($ Pre-image $)($ Scale factor) - (center of dilation)
Dilation Rule: $x_{i m}=\left(x_{p}\right)(S F)-x_{c}$ and $y_{i m}=\left(y_{p}\right)(S F)-y_{c}$

