We are given a partially defined matrix Mo:

$$M_0 = \begin{bmatrix} 0 & 4 & 3 & 3 \\ 2 & 2 & 3 & 2 \\ 4 & 2 & 4 & 4 \\ 2 & 4 & 5 & 3 \end{bmatrix}$$

$$M_{0} = \begin{bmatrix} 0 & 4 & \frac{2}{3} & \frac{3}{3} \\ \frac{2}{3} & 2 & \frac{3}{3} & \frac{2}{3} \\ 4 & \frac{2}{3} & 4 & 4 \\ 2 & 4 & 5 & \frac{2}{3} & \frac{3}{3} \end{bmatrix}$$

$$D_{\tau}(X) = U D_{\tau}(X) V^{\tau}$$

$$D_{\tau}(X) = diag(max(\sigma_{4} - \tau, 0), ..., max(\sigma_{min(n_{1}, n_{2})} - \tau, 0))$$

$$P_{\Omega}(A) = \begin{cases} a_{ij}, (i, j) \in \Omega \\ 0, (i, j) \notin \Omega \end{cases}$$

$$\mathsf{P}^{\mathbf{U}}(\mathsf{V}) = \begin{cases} 0 & (i,j) \in \mathcal{V} \\ \sigma^{ij}, & (i,j) \notin \mathcal{V} \end{cases}$$

$$\lambda_{(k)} = \lambda_{(k-1)} + 2^{k} b^{2} (W - \chi_{(k)})$$

$$\lambda_{(k)} = D^{\perp} (\lambda_{(k-1)})$$

$$X^{(4)} = D_T(0) = 0$$

$$Y^{(4)} = 0 + S \cdot P$$

$$X^{(4)} = D_{T}(0) = O$$

$$Y^{(4)} = O + S_{k} \cdot P_{SL}(M - O) = S_{k} \cdot P_{SL} \left( \begin{bmatrix} 0 & 4 & 2 & 3 \\ 2 & 2 & 3 & 2 \\ 4 & 2 & 4 & 4 \\ 2 & 4 & 5 & 2 \end{bmatrix} \right) = S_{k} \begin{bmatrix} 0 & 4 & 0 & 3 \\ 0 & 2 & 3 & 0 \\ 4 & 0 & 4 & 4 \\ 2 & 4 & 5 & 0 \end{bmatrix}$$