$$\mathbf{A}^T = egin{bmatrix} a_{00} & a_{10} & a_{20} \ a_{01} & a_{11} & a_{21} \ a_{02} & a_{12} & a_{22} \ a_{03} & a_{13} & a_{23} \ a_{04} & a_{14} & a_{24} \end{bmatrix}$$