

$$\begin{bmatrix} X(0) \\ X(1) \\ X(2) \\ X(3) \\ \vdots \\ X(N-1) \end{bmatrix} = \begin{bmatrix} W^0 & W^0 & W^0 & \dots & W^0 \\ W^0 & W^{1 \times 1} & W^{2 \times 1} & \dots & W^{(N-1) \times 1} \\ W^0 & W^{1 \times 2} & W^{2 \times 2} & \dots & W^{(N-1) \times 2} \\ W^0 & W^{1 \times 3} & W^{2 \times 3} & \dots & W^{(N-1) \times 3} \\ \vdots & \vdots & \vdots & \vdots & \vdots \\ W^0 & W^{1 \times (N-1)} & W^{2 \times (N-1)} & \dots & W^{(N-1) \times (N-1)} \end{bmatrix} \begin{bmatrix} x(0) \\ x(1) \\ x(2) \\ x(3) \\ \vdots \\ x(N-1) \end{bmatrix}$$