

$$\begin{pmatrix} a^0 \\ 1 \end{pmatrix} = \begin{pmatrix} a_1^0 \\ a_2^0 \\ 1 \end{pmatrix} \quad \begin{pmatrix} a^1 \\ 1 \end{pmatrix} = \begin{pmatrix} a_1^1 \\ a_2^1 \\ a_3^1 \\ 1 \end{pmatrix} \quad \begin{pmatrix} a^2 \\ 1 \end{pmatrix} = \begin{pmatrix} a_1^2 \\ a_2^2 \\ a_3^2 \\ 1 \end{pmatrix} \quad a^3 = \begin{pmatrix} a_1^3 \\ a_2^3 \end{pmatrix}$$

$$W^1 = \begin{pmatrix} w_{11}^1 & w_{12}^1 & w_{13}^1 \\ w_{21}^1 & w_{22}^1 & w_{23}^1 \\ w_{31}^1 & w_{32}^1 & w_{33}^1 \end{pmatrix} \quad W^2 = \begin{pmatrix} w_{11}^2 & w_{12}^2 & w_{13}^2 & w_{14}^2 \\ w_{21}^2 & w_{22}^2 & w_{23}^2 & w_{24}^2 \\ w_{31}^2 & w_{32}^2 & w_{33}^2 & w_{34}^2 \end{pmatrix} \quad W^3 = \begin{pmatrix} w_{11}^3 & w_{12}^3 & w_{13}^3 & w_{14}^3 \\ w_{21}^3 & w_{22}^3 & w_{23}^3 & w_{24}^3 \end{pmatrix}$$

$$z^1 = \begin{pmatrix} z_1^1 \\ z_2^1 \\ z_3^1 \end{pmatrix} \quad z^2 = \begin{pmatrix} z_1^2 \\ z_2^2 \\ z_3^2 \end{pmatrix} \quad z^3 = \begin{pmatrix} z_1^3 \\ z_2^3 \end{pmatrix}$$

$$\Sigma^1(z^1) = \begin{pmatrix} \sigma(z_1^1) \\ \sigma(z_2^1) \\ \sigma(z_3^1) \end{pmatrix} \quad \Sigma^2(z^2) = \begin{pmatrix} \sigma(z_1^2) \\ \sigma(z_2^2) \\ \sigma(z_3^2) \end{pmatrix} \quad \Sigma^3(z^3) = \begin{pmatrix} \sigma(z_1^3) \\ \sigma(z_2^3) \end{pmatrix}$$