



수행 순서

① X_1
 $n \times 784$

W_1
 784×50

b_1
 $n \times 50$

$$\begin{pmatrix} x_{11}, x_{12}, x_{13}, \dots, x_{1784} \\ \vdots \\ x_{n784} \end{pmatrix} \cdot \begin{pmatrix} w_{11}, w_{12}, \dots, w_{150} \\ w_{21}, w_{22}, \dots, w_{250} \\ \vdots \\ w_{7841}, w_{7842}, \dots, w_{78450} \end{pmatrix} + \begin{pmatrix} b_{11}, b_{12}, b_{13}, \dots, b_{150} \\ \vdots \\ b_{n50} \end{pmatrix}$$

② X_2
 $n \times 50$

W_2
 50×100

b_2
 $n \times 100$

$$\begin{pmatrix} x_{11}, x_{12}, x_{13}, \dots, x_{150} \\ \vdots \\ x_{n50} \end{pmatrix} \cdot \begin{pmatrix} w_{11}, w_{12}, \dots, w_{1100} \\ w_{21}, w_{22}, \dots, w_{2100} \\ \vdots \\ w_{501}, w_{502}, \dots, w_{50100} \end{pmatrix} + \begin{pmatrix} b_{11}, b_{12}, b_{13}, \dots, b_{1100} \\ \vdots \\ b_{n100} \end{pmatrix}$$

③ X_3 \cdot W_3 $+$ b_3
 $n \times 100$ 100×10 $n \times 10$

$$\begin{pmatrix} x_{11}, x_{12}, x_{13}, \dots, x_{1100} \\ \vdots \\ x_{n100} \end{pmatrix} \cdot \begin{pmatrix} w_{11}, w_{12}, \dots, w_{110} \\ w_{21}, w_{22}, \dots, w_{210} \\ \vdots \\ w_{1001}, w_{1002}, \dots, w_{10010} \end{pmatrix} + \begin{pmatrix} b_{11}, b_{12}, b_{13}, \dots, b_{110} \\ \vdots \\ b_{n10} \end{pmatrix}$$

④ 출력

Y $n \times 10$

$$\begin{pmatrix} y_{11}, y_{12}, y_{13}, \dots, y_{110} \\ \vdots \\ y_{n10} \end{pmatrix}$$