For the network in Figure 2b, the output can be given by

$$\tilde{a}^{(1)} = \tilde{W} \cdot \tilde{a}^{(0)} + \tilde{b}$$

To establish two networks equivalent, the following equations need to be set up

$$\vec{\mathrm{a}}^{(3)} = \tilde{a}^{(1)}$$

$$\vec{\mathrm{a}}^{(0)} = \tilde{a}^{(0)}$$

So, we need to list the equation between $\vec{\mathrm{a}}^{(3)}$ and $\vec{\mathrm{a}}^{(0)}$.

Known by the background, the equation can be given by

$$\vec{\mathrm{a}}^{(3)} = W^{(3)} \cdot W^{(2)} \cdot W^{(1)} \cdot \vec{\mathrm{a}}^{(0)} + W^{(3)} \cdot W^{(2)} \cdot \vec{b}^{(1)} + W^{(3)} \cdot \vec{b}^{(2)} + \vec{b}^{(3)}$$

Therefore, Network 2's weights ($\tilde{W}$) and bias ($\tilde{\mathrm{b}}$) can be given by

$$\tilde{W} = W^{(3)} \cdot W^{(2)} \cdot W^{(1)}$$

$$\tilde{\mathrm{b}} = W^{(3)} \cdot W^{(2)} \cdot \vec{b}^{(1)} + W^{(3)} \cdot \vec{b}^{(2)} + \vec{b}^{(3)}$$