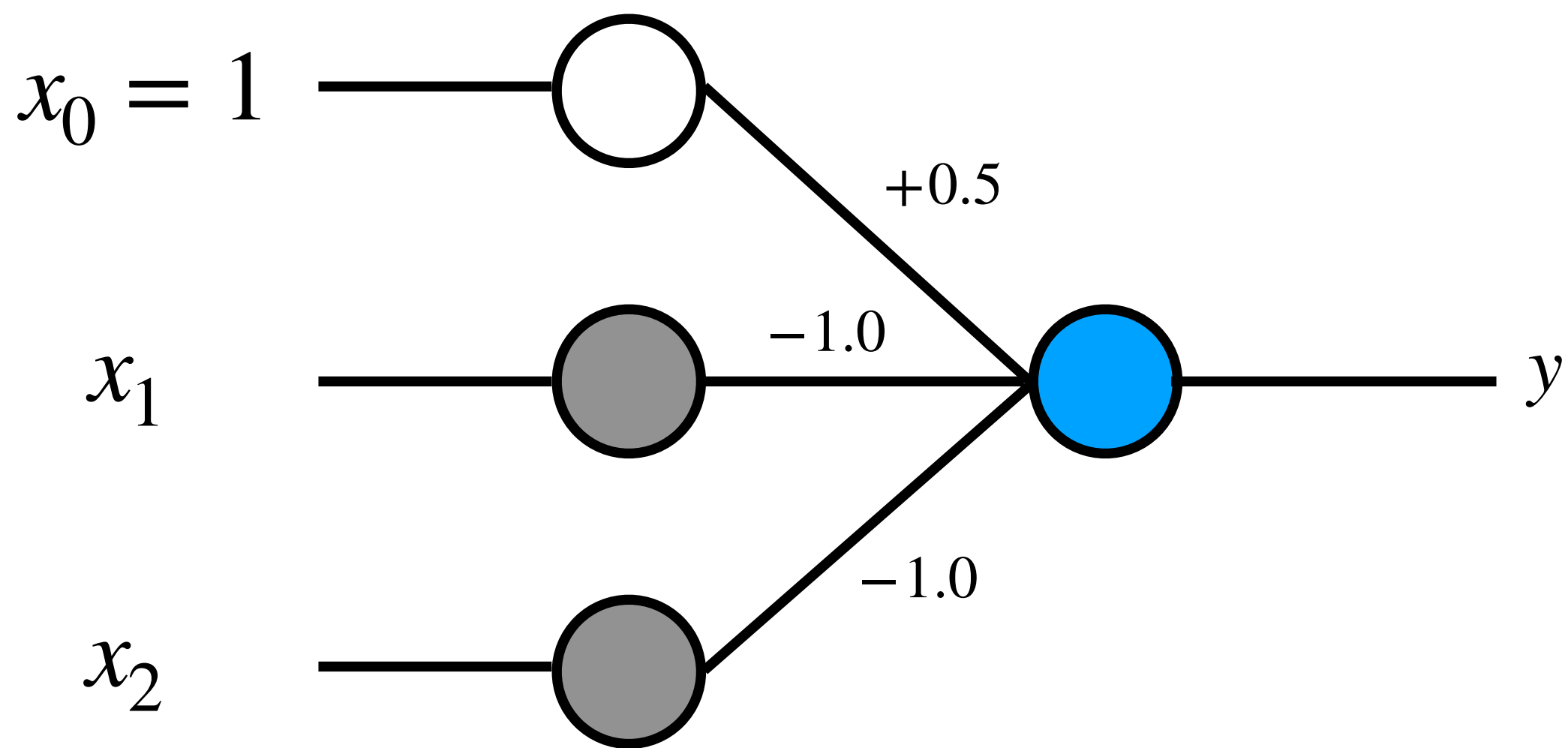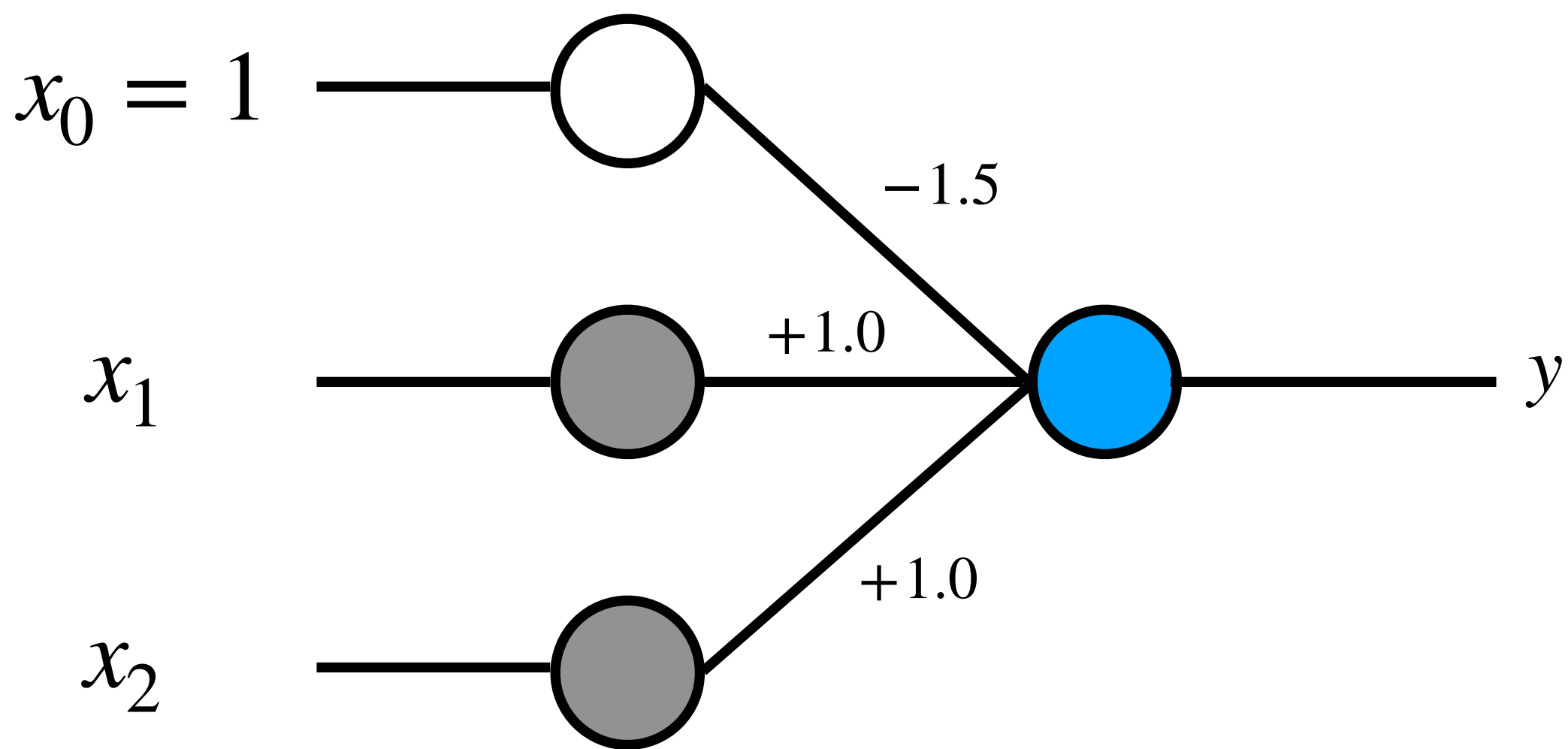# NOR 분류

AND 분류

매트릭스

$$U^1 = \begin{pmatrix} -0.3 & 1.0 & 1.2 \\ 1.6 & -1.0 & -1.1 \end{pmatrix}$$

$$U^2 = \begin{pmatrix} 1.0 & 1.0 & -1.0 \\ 0.7 & 0.5 & 1.0 \end{pmatrix}$$
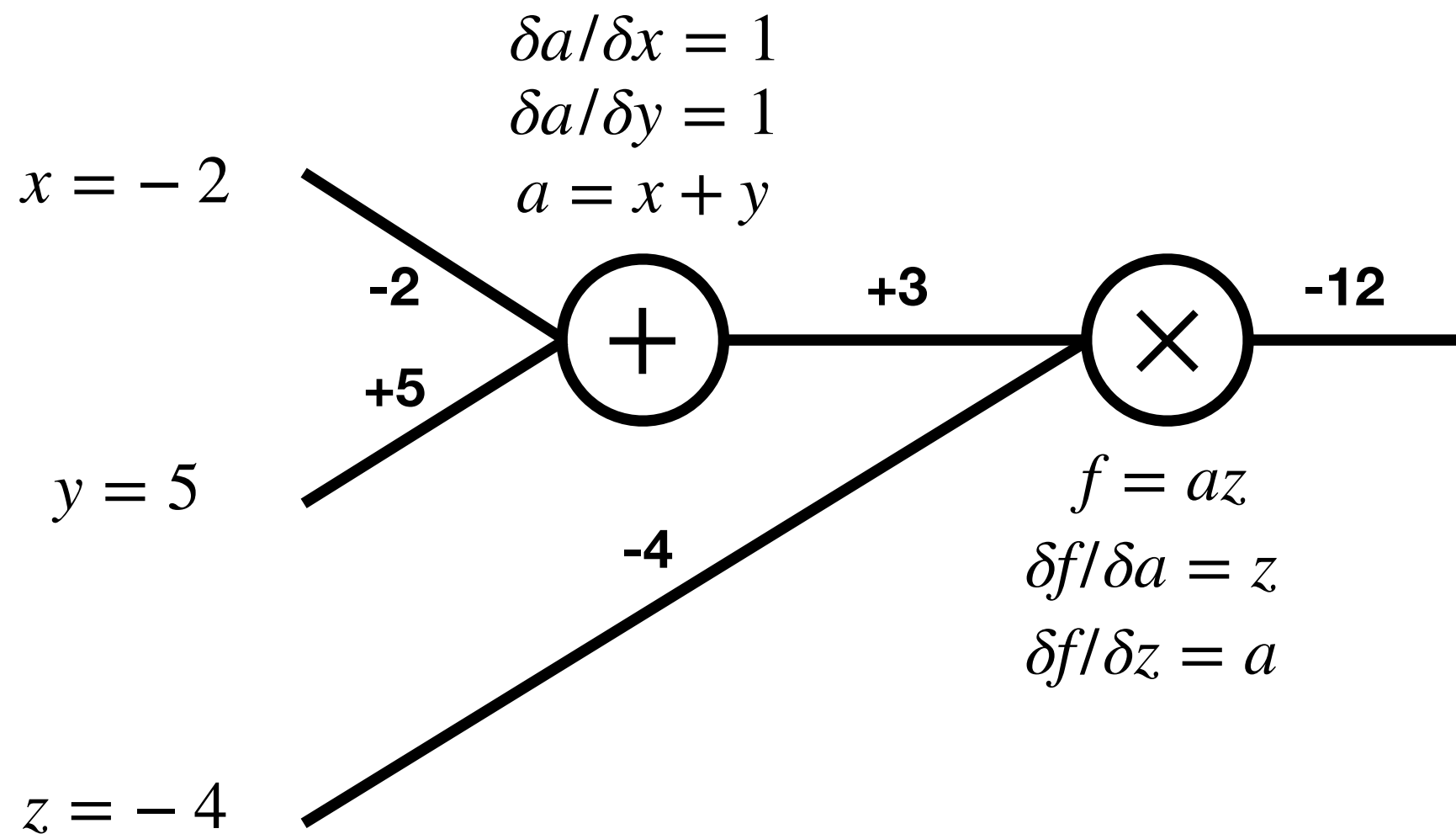
$$U^3 = \begin{pmatrix} 0.5 & -0.8 & 1.0 \\ -0.1 & 0.3 & 0.4 \end{pmatrix}$$

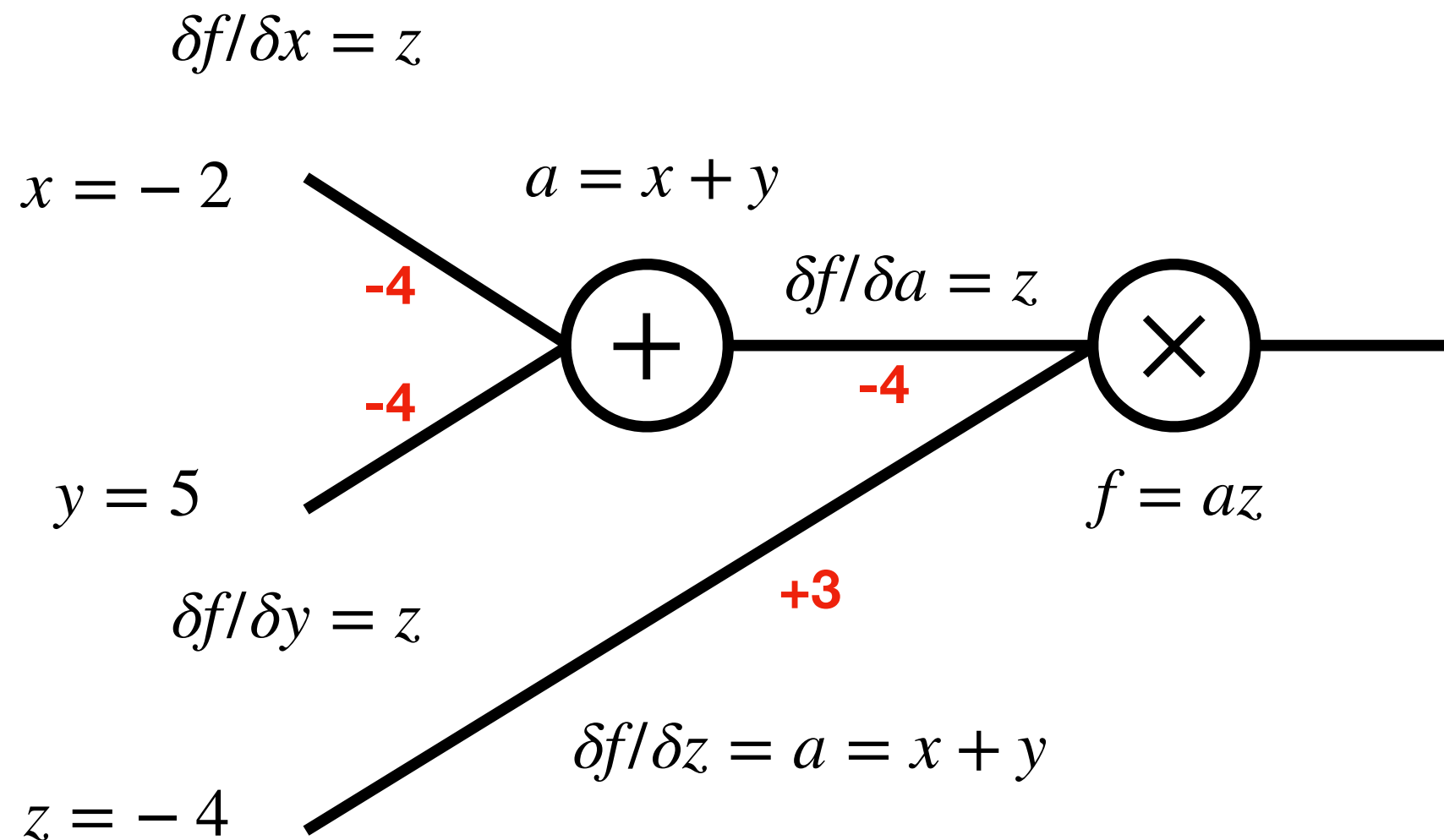$$U^4 = \begin{pmatrix} 1.0 & 0.1 & -0.2 \\ -0.2 & 1.3 & -0.4 \end{pmatrix}$$

특징맵

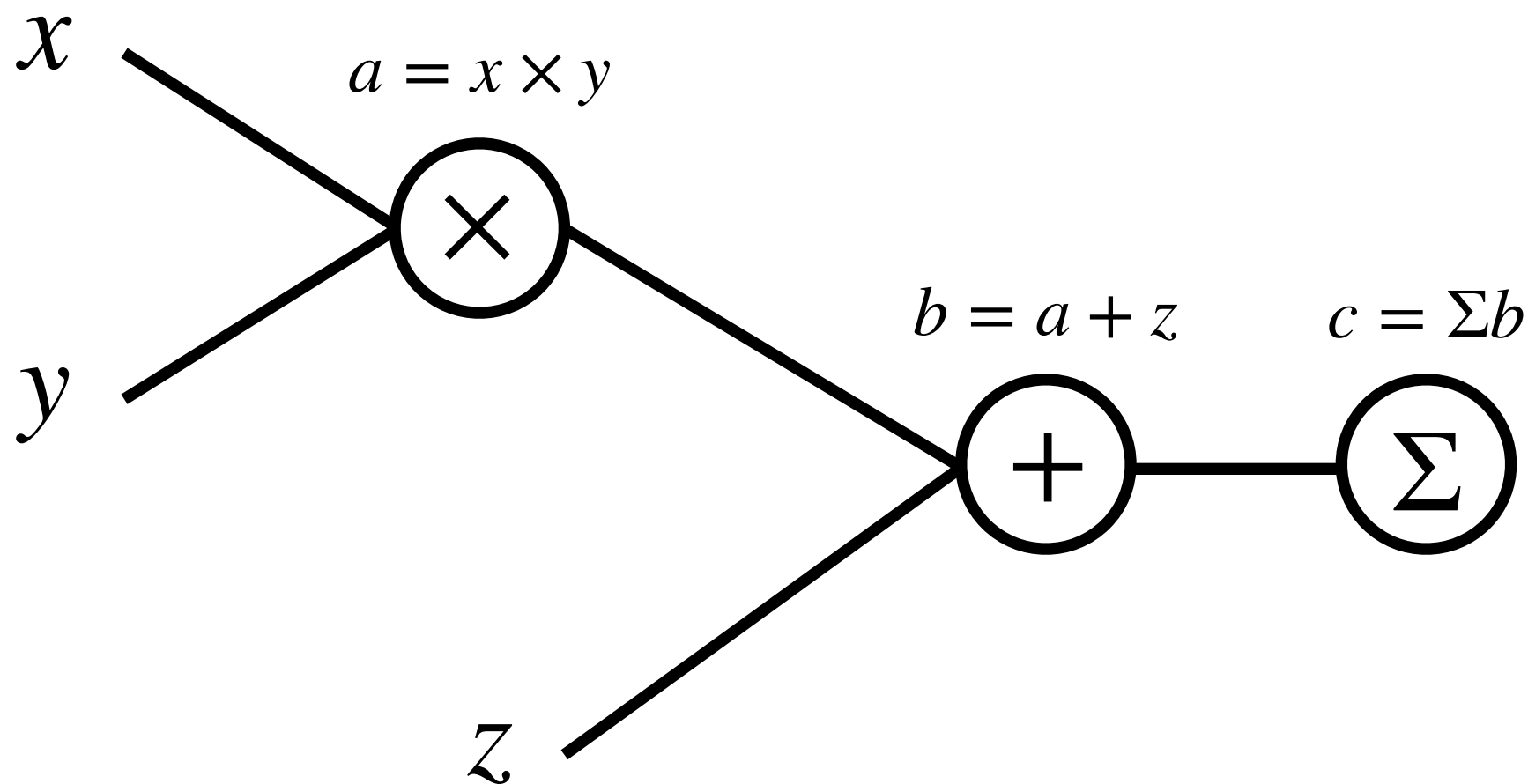$$\begin{pmatrix} 9 & 13 & 9 \\ 9 & 8 & 13 \\ 5 & 1 & 4 \end{pmatrix}$$

Forward Pass

$\delta a / \delta x = 1$
$\delta a / \delta y = 1$
$a = x + y$

$x = -2$

-2

+3

-12

+5

$y = 5$

-4

$f = az$
$\delta f / \delta a = z$
$\delta f / \delta z = a$

$z = -4$

Back Propagation

$\delta f/\delta x = z$

$x = -2$

$a = x + y$

$\delta f/\delta a = z$

-4

-4

$y = 5$

-4

$f = az$

$\delta f/\delta y = z$

+3

$\delta f/\delta z = a = x + y$

$z = -4$

2_2 Error Backprop

2_3 Error Backprop