

$$X \cdot w + b = Z$$

Diagram illustrating the linear transformation $Z = X \cdot w + b$. X is a horizontal vector of four boxes, each containing three dots. w is a vertical vector of four boxes, each containing a red bell curve. b is a single box containing a blue bell curve. Z is a single box containing a black bell curve. The equation is shown with a dot for multiplication, a plus for addition, and an equals sign.

