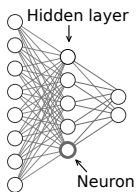


**A**

Input

$$z = \sum_{i=1}^n w_i x_i + b$$

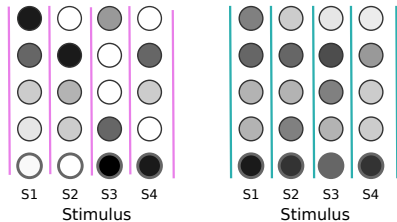
Activation

$$f(z) = \frac{1}{1 + e^{-gz}}$$

Diagram illustrating the calculation of the weighted sum  $z$  for a neuron. Inputs  $x_1, x_2, \dots, x_n$  are multiplied by weights  $w_1, w_2, \dots, w_n$  and summed ( $\Sigma$ ) to produce the activation  $z$ , which is then passed through the activation function  $f(z)$ .

**C**

Activation pattern hidden layer

**D**

Activation response to the same input

**B**