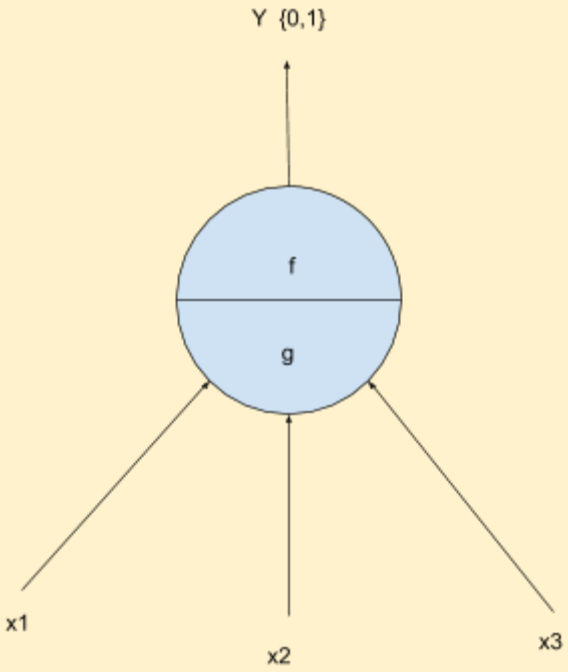
PadhAI: MP Neuron & Perceptron

One Fourth Labs

MP Neuron Model

What is the mathematical model?



1. Inputs belong to a discrete set of values {0,1}
2. g aggregates the inputs and function f takes a decision based on these aggregations
3. These inputs can be excitatory or inhibitory
   a. y = 0 if x_i is inhibitory (outputs zero, sort of an override), else
   b. $g(x) = \Sigma^{n}_{i=1} x_i$
   c. y = f(g(x))
      i. y = 1 if g(x) >= b
      ii. y = 0 if g(x) < b
      iii. Where b is a threshold value
      iv. b is a parameter, it is adjusted with the aim of maximizing the number of correct predictions