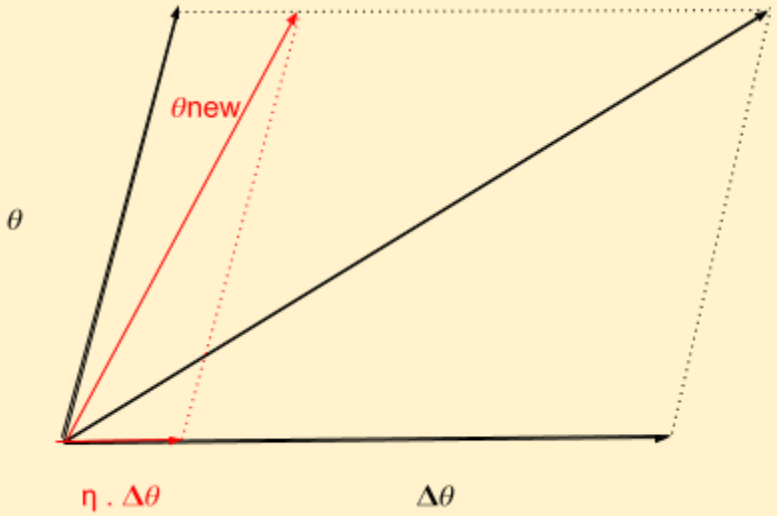
PadhAI: 6 Jars of Sigmoid Neuron

One Fourth Labs

Mathematical setup for the learning algorithm

What is our aim now?

1. Instead of guessing Δw and Δb, we need a principled way of changing w and b based on the loss function.
2. First, let's formulate this more mathematically
   a. θ = [w, b] (Theta is a vector containing the values of w and b)
   b. $\Delta\theta$ = [Δw, Δb] ($\Delta\theta$ is the change vector, the value we change w and b by)
   c. $\theta = \theta + \eta \Delta\theta$ (Where η is the learning rate, which allows for small changes in θ)



   d. We need to compute $\Delta\theta$ such that Loss(θ_{new}) < Loss(θ_{old})