## One Fourth Labs

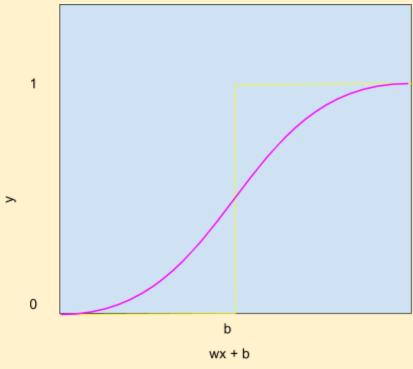
## Sigmoid Neuron

## Sigmoid Model

## Model Part 1

Can we have a smoother (not-so-harsh) function?

1. The sigmoid function is provides a smoother, s-shaped curve as opposed to a stepped line.



- 2.
- 3. The function is defined as  $y = 1/(1 + \exp(-(\sum_i w_i x_i + b)))$ , where i = 1 to n
- 4. Substituting different values for  $(w^Tx + b)$  and y, we will be able to trace out a curve similar to the one drawn above
  - a.