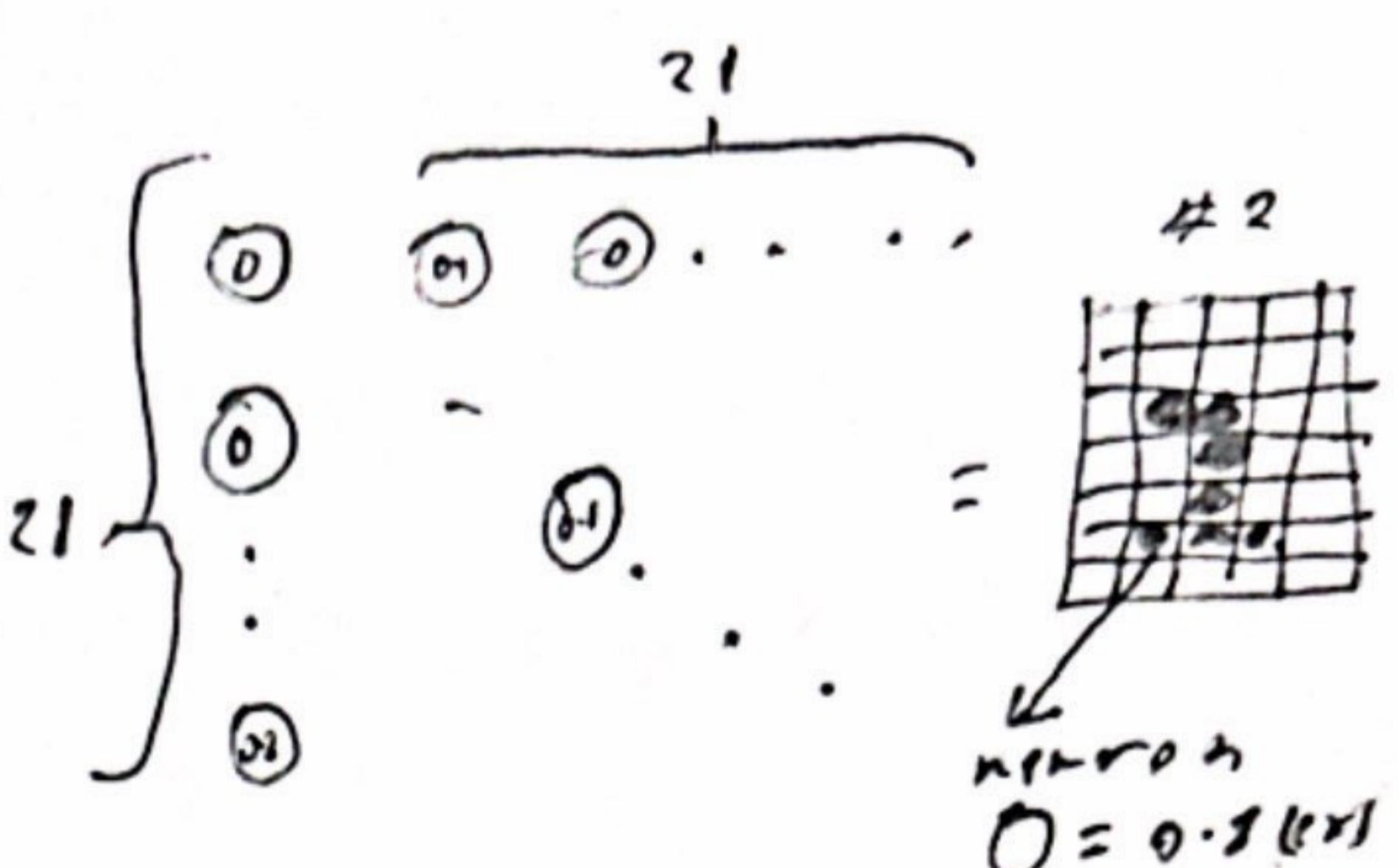
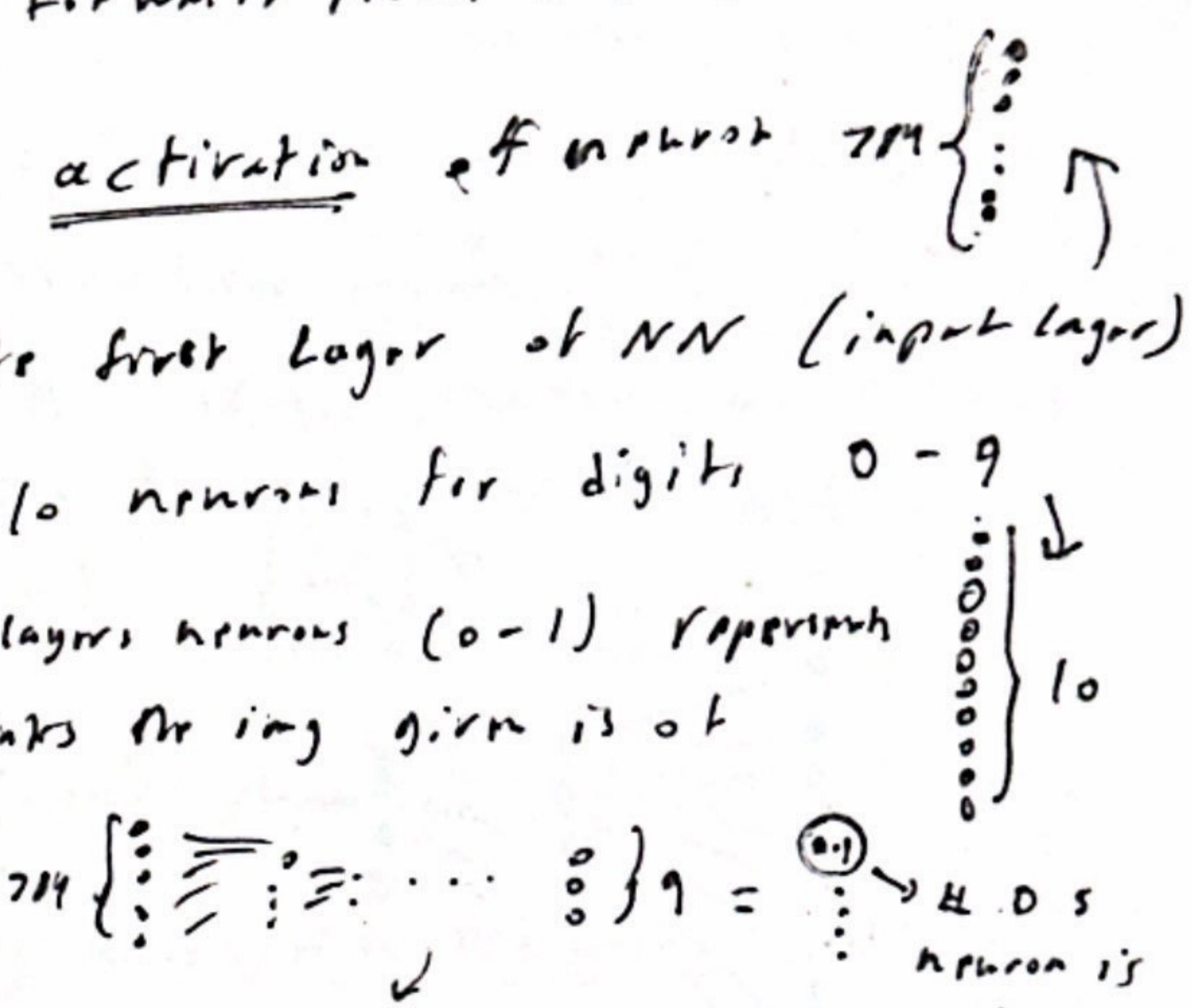


# NN . cont (p2)

- For starters  neuron → hold a number (switching) (num 0 → 2 here)
- Each  $28 \times 28$  pixels 784 corresponds to a neuron  
784 total neurons each holds a number this makes up the img
- The pixels gray scale val = The neurons number (val)  
0 for black pixel 2 for white pixels and others in between
- This number is   $\rightarrow$  activation of neuron 784
- The 784 neurons are the first layer of NN (input layer)
- The last layer has 10 neurons for digits 0 - 9
- The activation in last layers neurons (0-1) represent how much computer thinks the img given is of this digit  $\rightarrow$  
- The layers in between are hidden layers which is the part that learns it. This you can have 2 hidden you can choose as many as you want
- Here the activations of one layer determine the activations of another. The input causes specific activations in one layer which cause specific activations in next layer and so on until final layer gives us an answer
- And the brightest neuron of output layer is final ans (digit)

**Dense.** a dense layer in NN is a Neural Network layer where every neuron in one layer is connected to all every neuron in the next layer (in most NN)