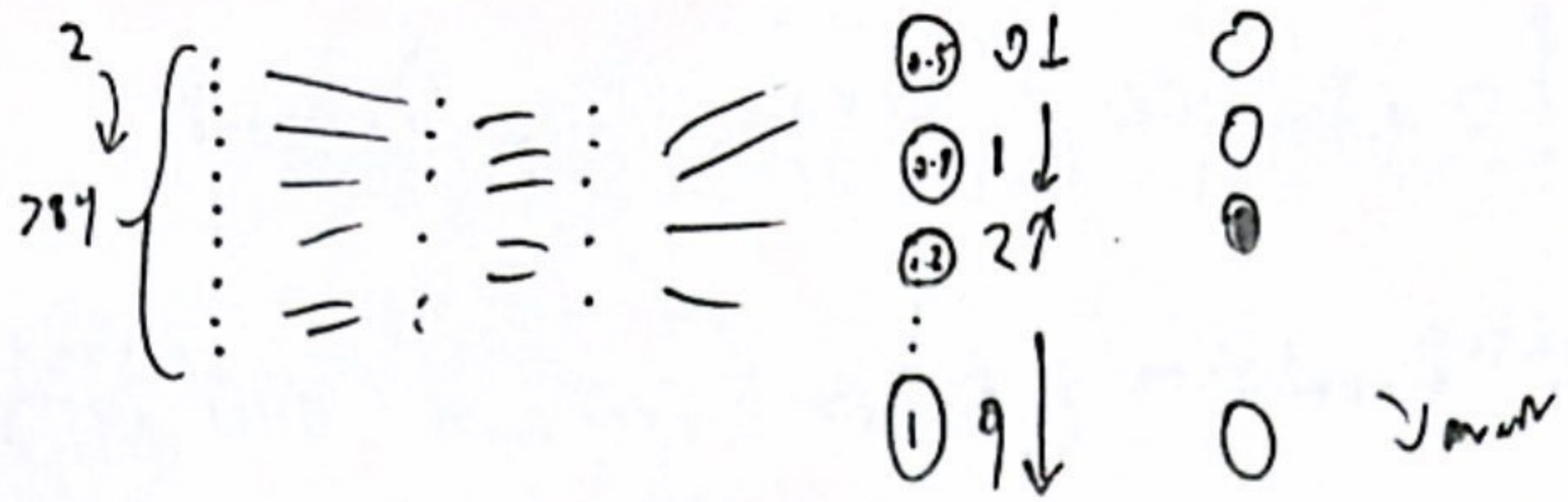


NN cont Backpropagation (p2)

- Zooming out

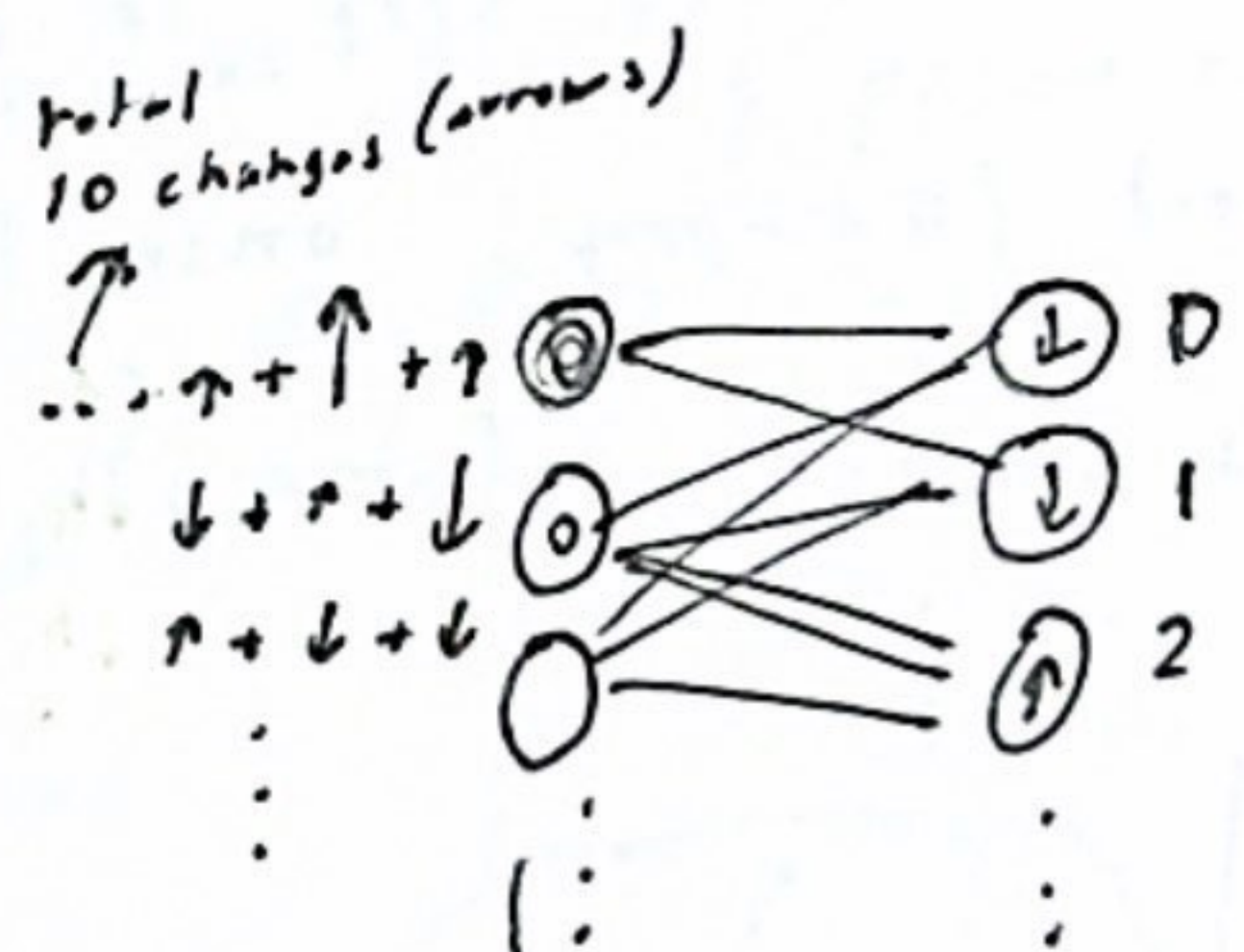


• Remember we don't only

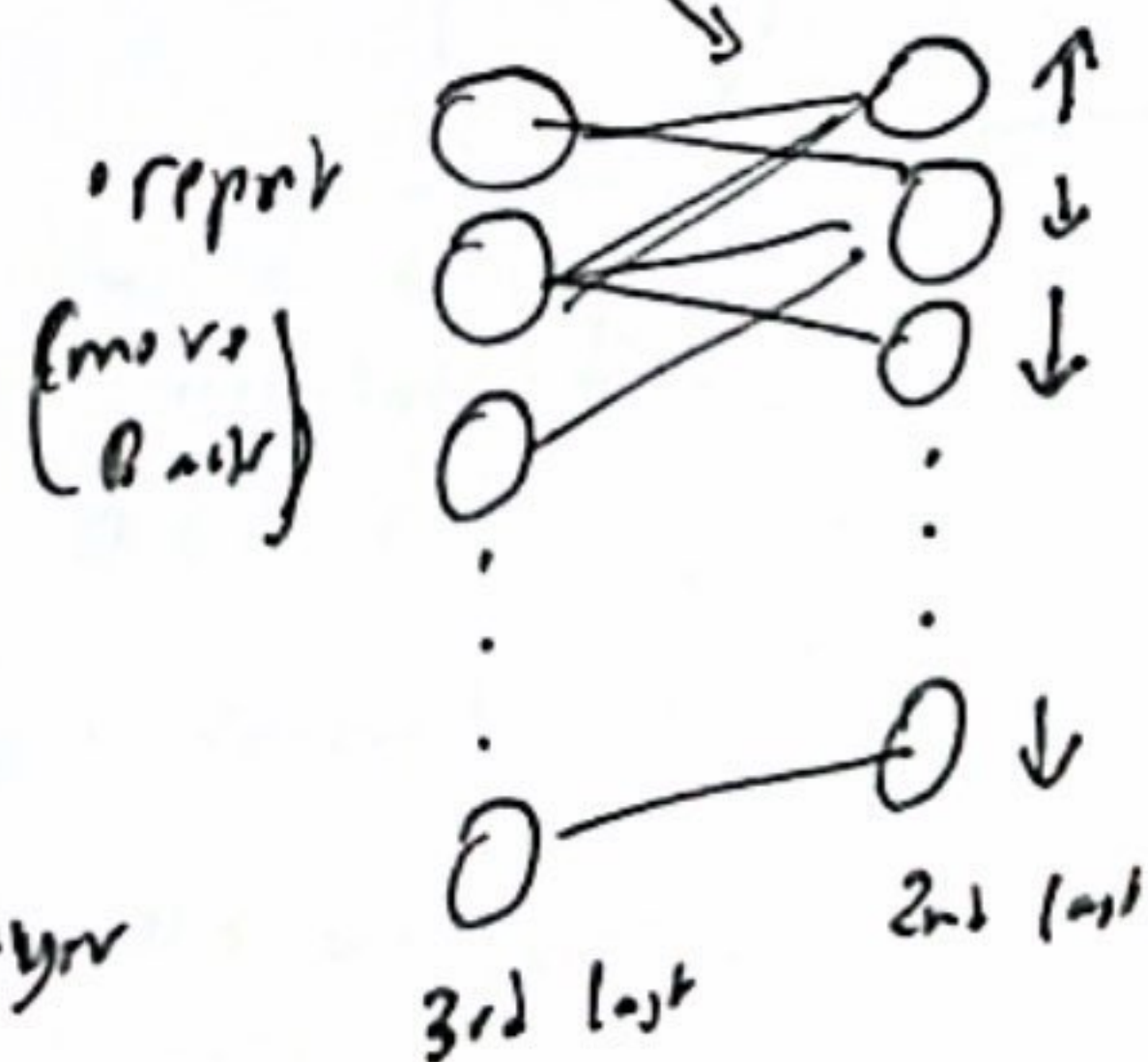
want to inc the neurons activation for 2 but decrease the activations for all other neurons by some amount "proportional to how important they are"

• and moving back again the 2nd last layer again has a influence on these activation 0-9 we want to change but 2 wants some change in 2nd last layer and 9 want another so how do we change activation for all neurons 0-9?

- all the desires of all neurons are added together and that's the final activation we want for that 2nd last layers neurons to have



- This is where backpropagation comes in as once we have the changes needed in 2nd last layer now we need to repeat this process with 3rd last layer as that influences the 2nd last layer. This goes on until first layer



★ NOTE This is only what 2 wants we need to apply this change with all training examples so we avg the weights and biases we wish to change for all training examples and then apply them

★ in Gradient Descent that gradient vector ∇C is gotten from Backpropagation it computes the gradients in the arrows & the GD applies