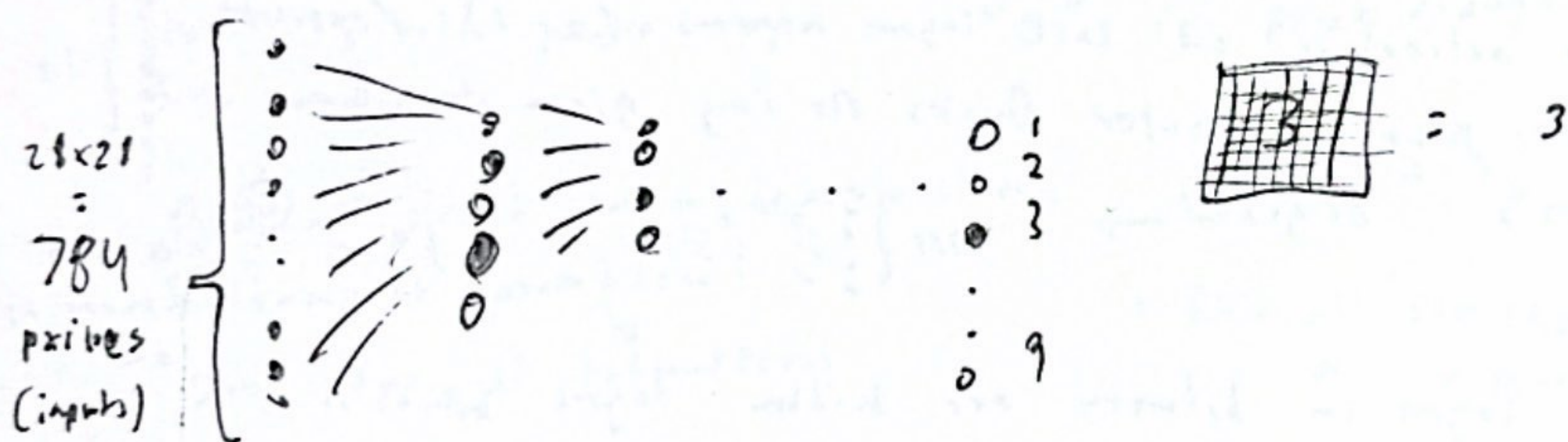


Neural Networks (complete guide)

- inspired by brain as it knows all 333 are three even though written differently the brain knows so NN are trying to mimic human neurons.
- NN Ex for all notes: image recognition
 - 28×28 grid of grayscale val (intensity of pixel black to white)

- NN are part of machine learning, since we cannot explicitly program what a 3 looks like as it's not the same when someone writes it again it won't be the exact same so not exact pixels lighting up, we have to use ML to teach NN (computer) what a 3 is.



- Variants of NN

- Convolutional Neural Network (CNN) → good for img recognition
- Long short-term memory Network (LSTM) → good for speech recognition
- Recurrent Neural Network (RNN) → good for sequential data
 - ↳ GRU (Gated Recurrent Unit) type of RNN
- We talk about plain vanilla NN:

- MLP, Multi layer perceptron