Chapter 1

1. What is a GPU?
   1. Graphics Processing Unit.
2. Open a notebook and execute a cell containing: 1+1. What happens?
   1. Outputs 2
3. What was the name of the first device that was based on the principle of the artificial neuron?
   1. The Mark 1 Perceptron
4. Do you need these for deep learning?
   1. Lots of math False
   2. Lots of data False
   3. Lots of expensive computers False
   4. A PhD False

Chapter 2

1. What is a confusion matrix?
   1. A table to pretty much visualize the performance of an algorithm.
2. What are the three steps in the deployment process?
   1. Development, Testing, Monitoring
3. What kind of tabular data is deep learning particularly good at?
   1. Recommendation Systems - high-cardinality categorical variable representing users.
4. What's a key downside of directly using a deep learning model for recommendation systems?
   1. They only tell you what products a particular user might like, rather than what recommendations would be helpful for a user.

Chapter 4

1. What is a "rank-3 tensor"?
   1. Just a 3D list of numbers
2. What is broadcasting?
   1. In relation to tensors, it is just to expand the tensor with the smaller rank to have the same size as the one with the larger rank
3. What are the seven steps in SGD for machine learning?
   1. Gathering Data
   2. Preparing Data
   3. Choosing a Model
   4. Training
   5. Evaluation
   6. Parameter Tuning
   7. Prediction
4. Are metrics generally calculated using the training set, or the validation set? Why?
   1. Validation set, in order to avoid overfitting.