

WORKSHEET FOR EXERCISES FROM CHAPTER 8

EXERCISE 8.1

1. What is the total SSE for the network after training has finished?
2. How many epochs of training occurred before the program stopped training the network
3. Examine how SSE for this network changed over time. In general, what can be said about the performance of this network on this problem?
4. Describe the kind of errors that the network made, if any. Is the network generating errors to a small number of problems, or are errors for all of the training patterns uniformly large? Relate the properties of any observed errors to what you know about the structure of the training set.
5. Rerun the network on the depend8.net problem, with a maximum number of sweeps set to 5000, training with the delta rule, and printing out information every 100 sweeps. Play with the learning rate a bit, and examine total SSE when the program stops training. Are you able to improve the performance of the network in any significant way? What are the implications of these observations? (To answer this question, you should provide some information about the settings that you used to run the study.)