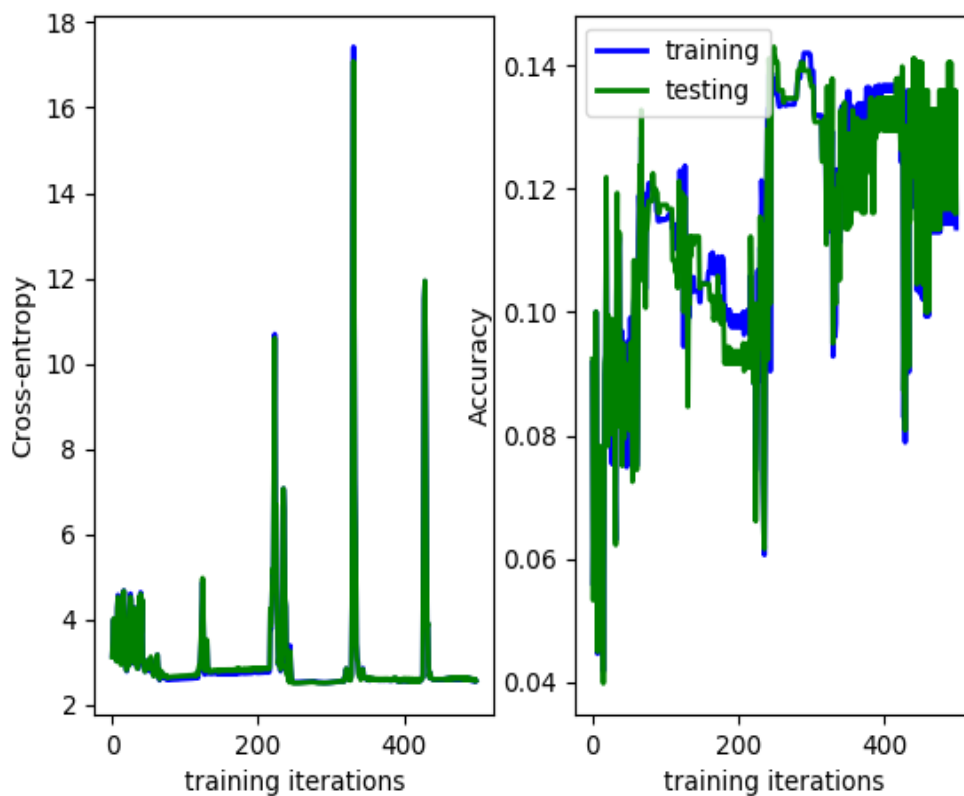# Neural Networks Exercise 4

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Figure 1: Tanh, Learning rate: 0.2

As we see in the table and from the figures, most paramater values seem to gravitate towards an accuracy of about 0.7 (even with learning rate set to 1.0). This happens fairly quickly for all configurations and they seem to not be able to escape that local minima. (Note that what is plotted in the graphs is the verification errors and not the test errors. Which is why it does not fully match with the corresponding missclassification rate)

The missclassification of the final network configuration resulted in 0.27 (Slightly higher than the 0.27 obtained from the previous attempts).
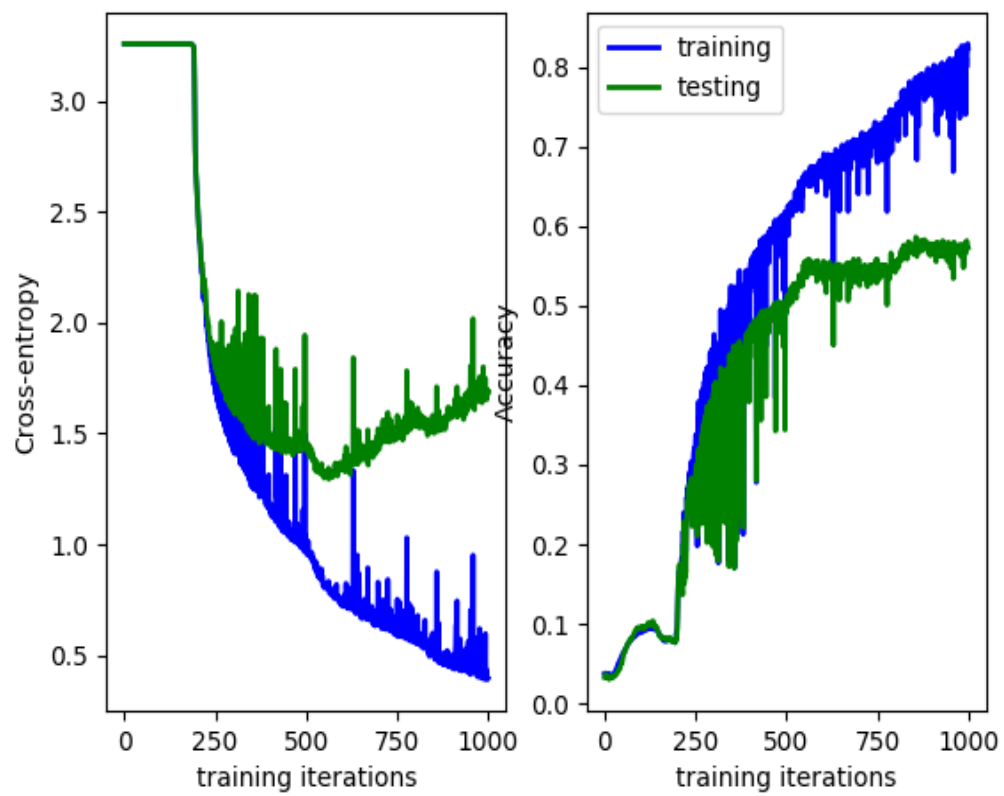
Figure 2: Tanh, Learning rate: 0.5

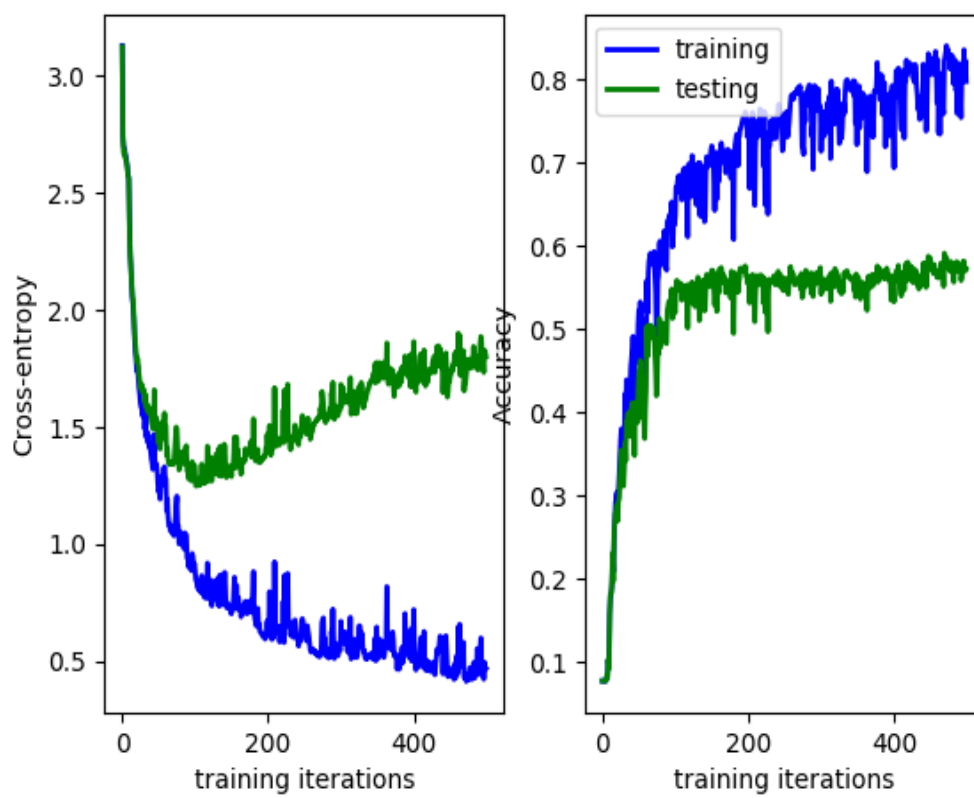Figure 3: Tanh, Learning rate: 0.001
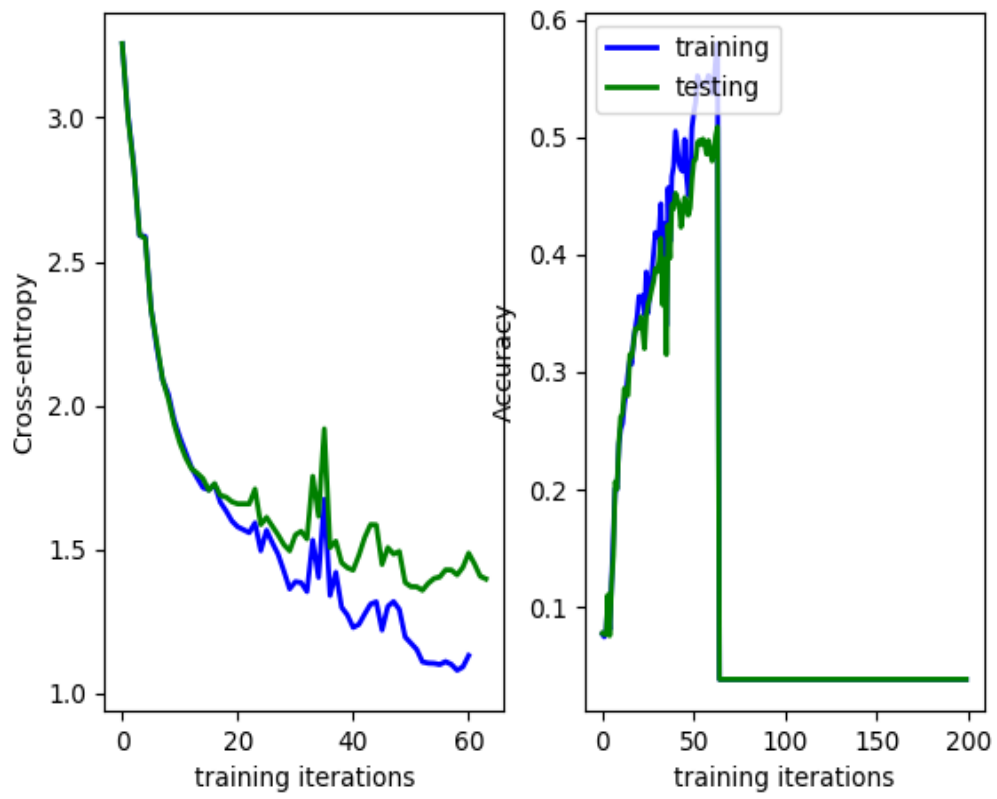
Figure 4: Relu, Learning rate: 0.001
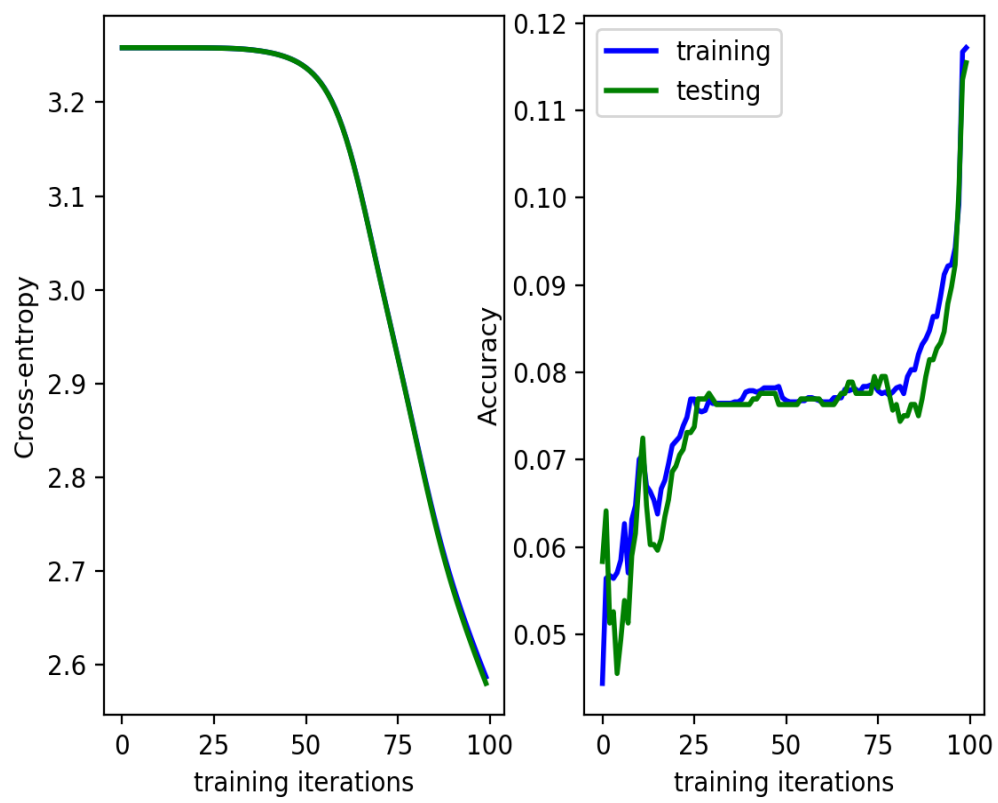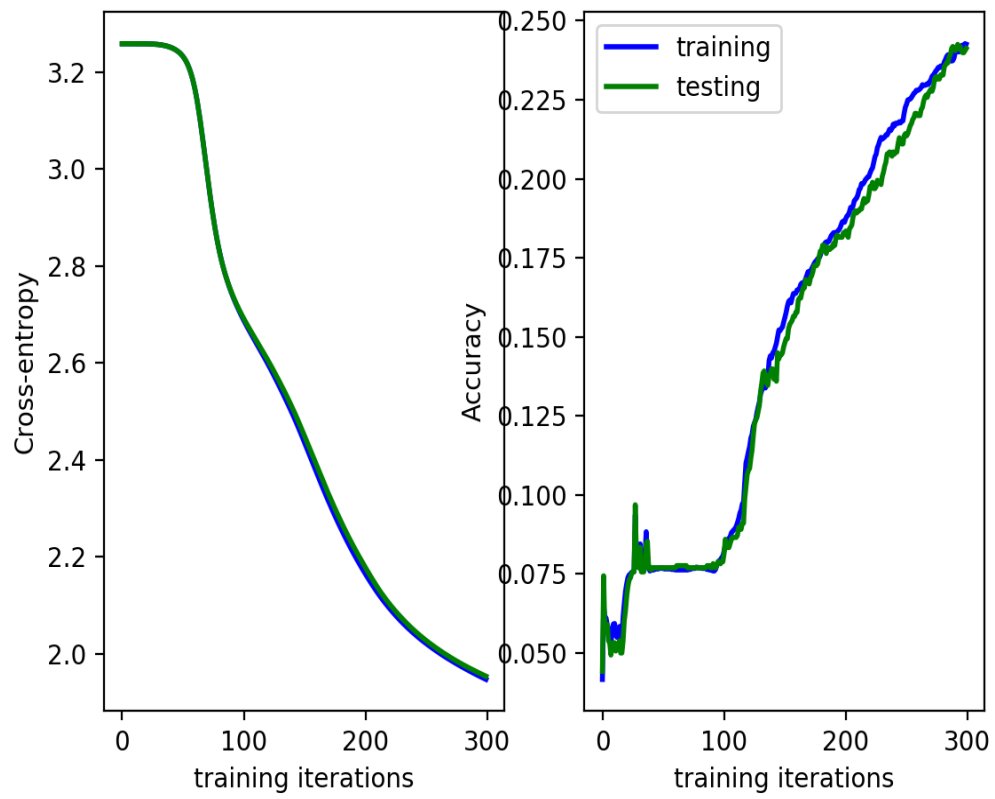
Figure 5: Relu, Learning rate: 0.00001

Figure 6: Relu, Learning rate: 0.00001

Figure 7: Relu, Learning rate: 0.00001