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Question 1

The accuracy of the learned model on the training set was 0.917309. This is different from the test set accuracy because we are applying the learned model on the training data set of MNIST images, which is the same set of data that we used to train the model instead of the test data set, which is a separate set of data that the learned model has never encountered before.

Question 2

With the loop changed to 10 iterations instead of 1000, the accuracy we get is 0.7644. With the loop changed to 10000 iterations instead of 1000, the accuracy we get is 0.9253. It seems that with an increased number of training iterations, the accuracy improves. This makes sense since the more trained the model is, the better it should perform on the testing data set.

Question 3

After initializing W and b with ones rather than zeros, the test set accuracy is 0.9174. This is not significantly different from the test set accuracy with all zeros. Since the values for W and b are to be learned during the training process, it doesn't matter much what they initially are, so whether they are initialized with all zeros or all ones doesn't significantly change the test set accuracy.