RESULTS

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For Project 3, we looked at a dataset of images of genuine and forged banknotes. We used logistic regression on a training set to attain suitable weights for the factors of variance, skewness, curtosis, and entropy. Then, we attempted to classify a test set of banknotes based on these weights. The results of this process are shown below.

Gradient Descent Program:

• Alpha: 1.3

• Number of iterations: 77

• Final J Value: 0.03395494668848878

Evaluation Program:

• True Positives: 123

• False Positives: 1

• True Negatives: 148

• False Negatives: 2

• Accuracy: 0.9890510948905109

• Precision: 0.9919354838709677

• Recall: 0.984

• F1 Score: 0.9879518072289156