Homework 5

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Question 1

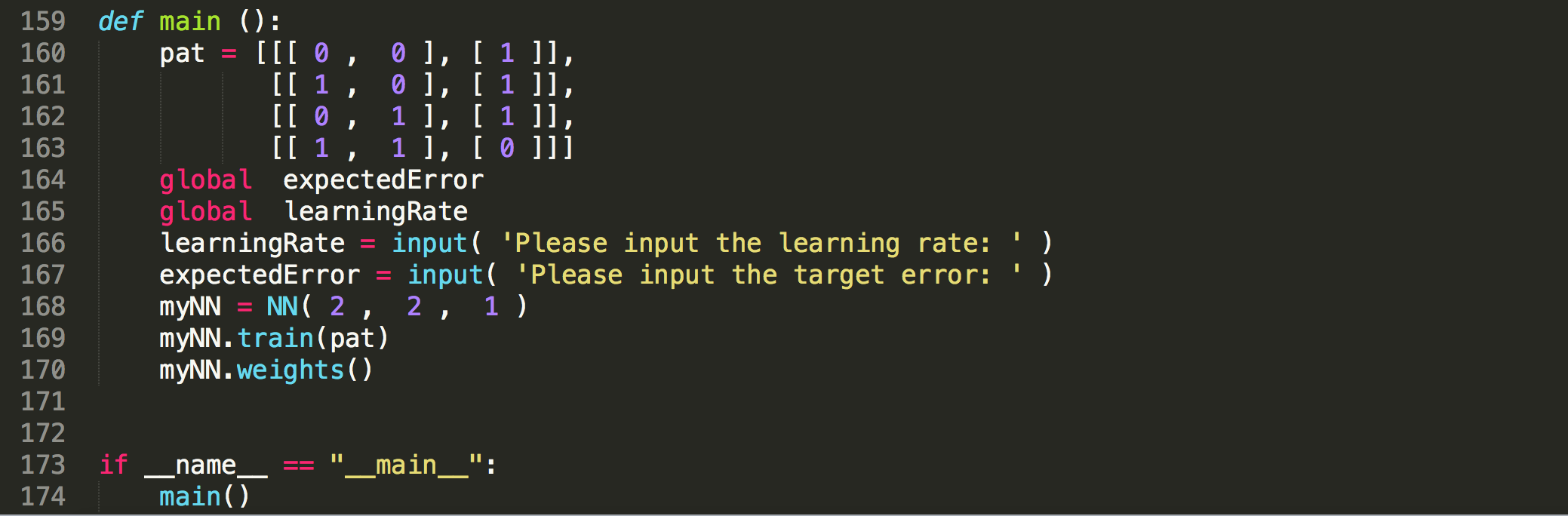
(1)







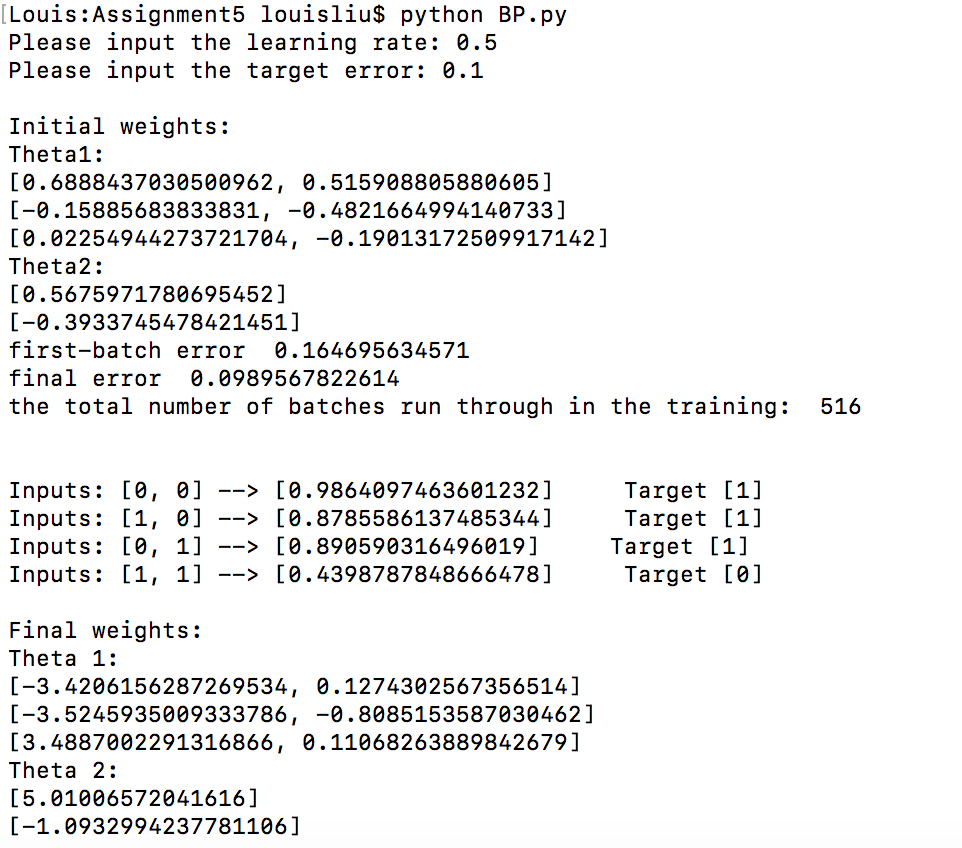




(2)

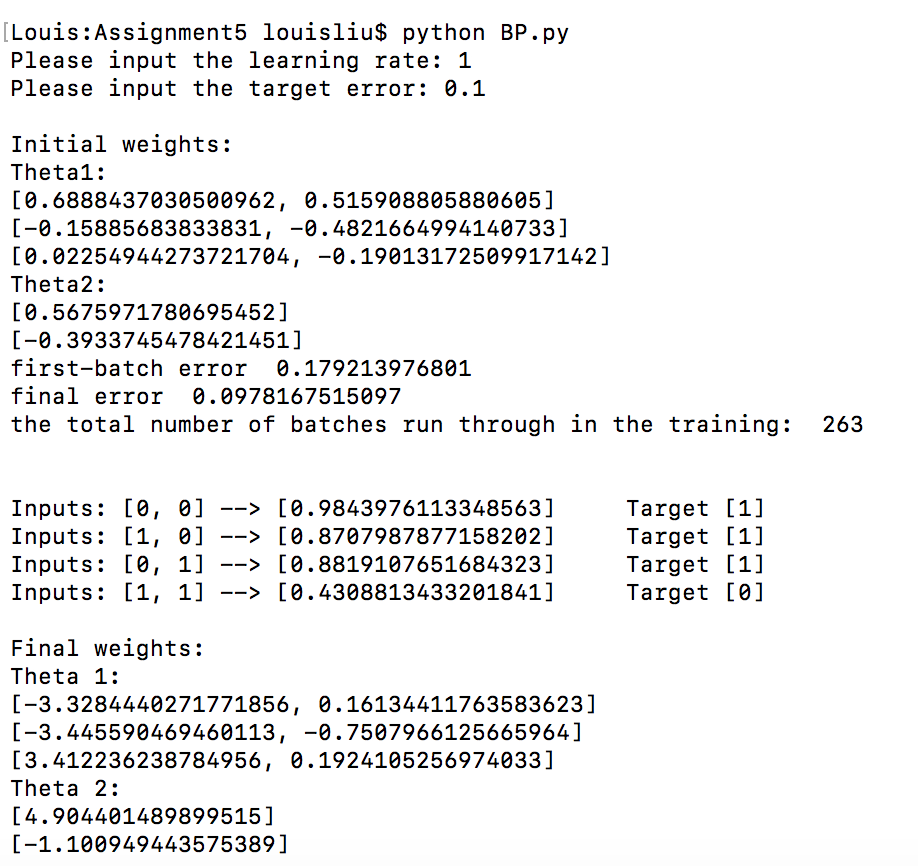
learning rate η = 0.5

target error ε = 0.1

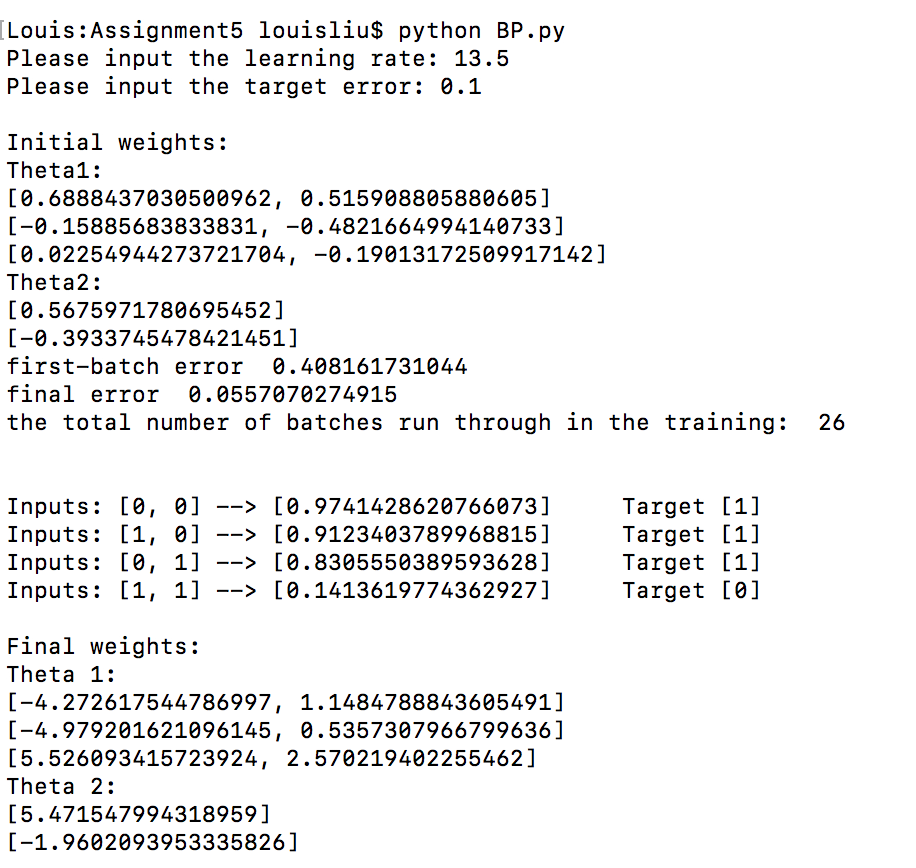


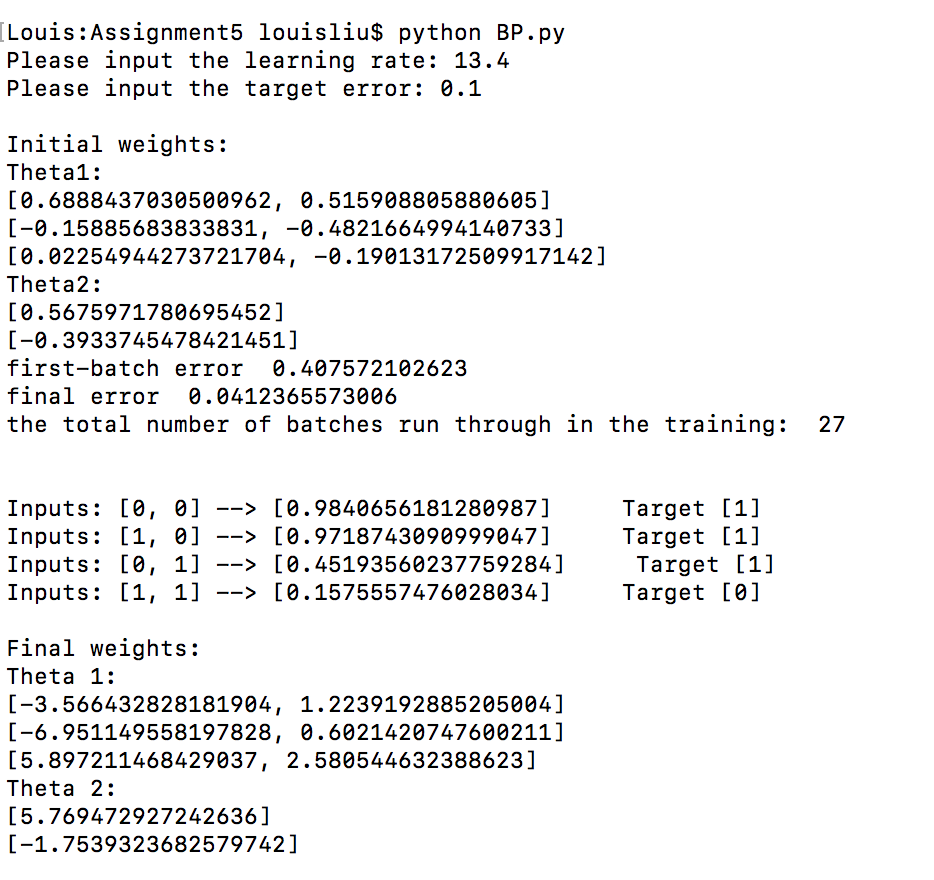
learning rate η = 1

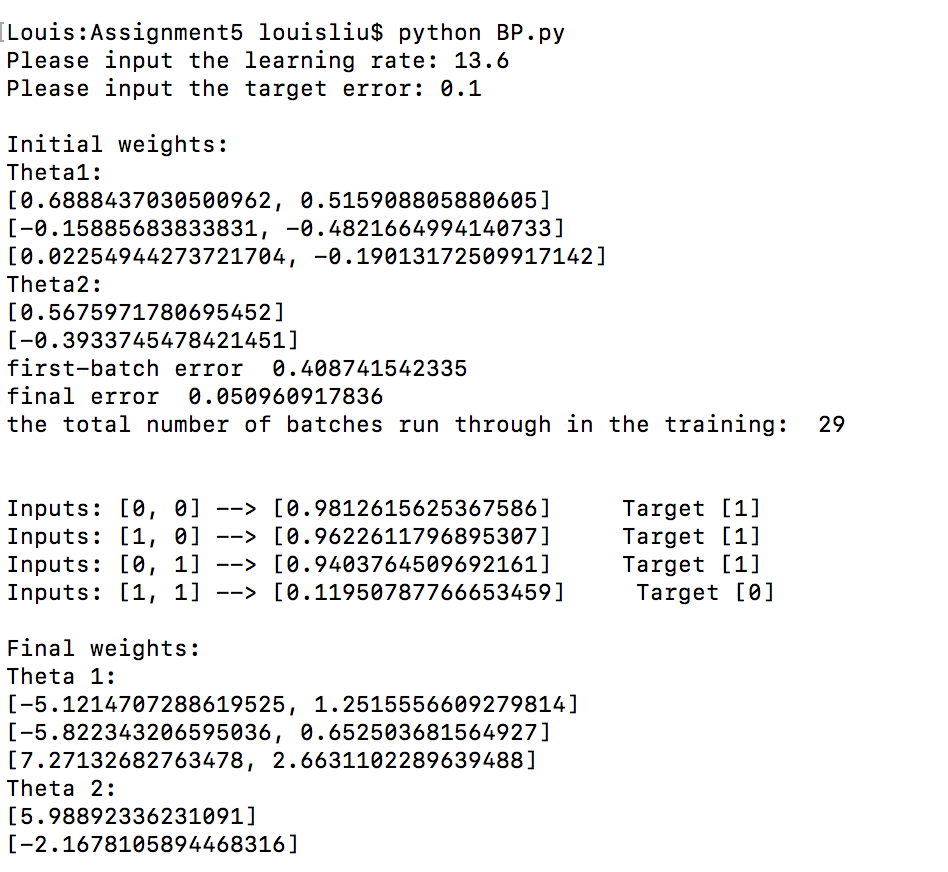
target error ε = 0.1



Find the best one:

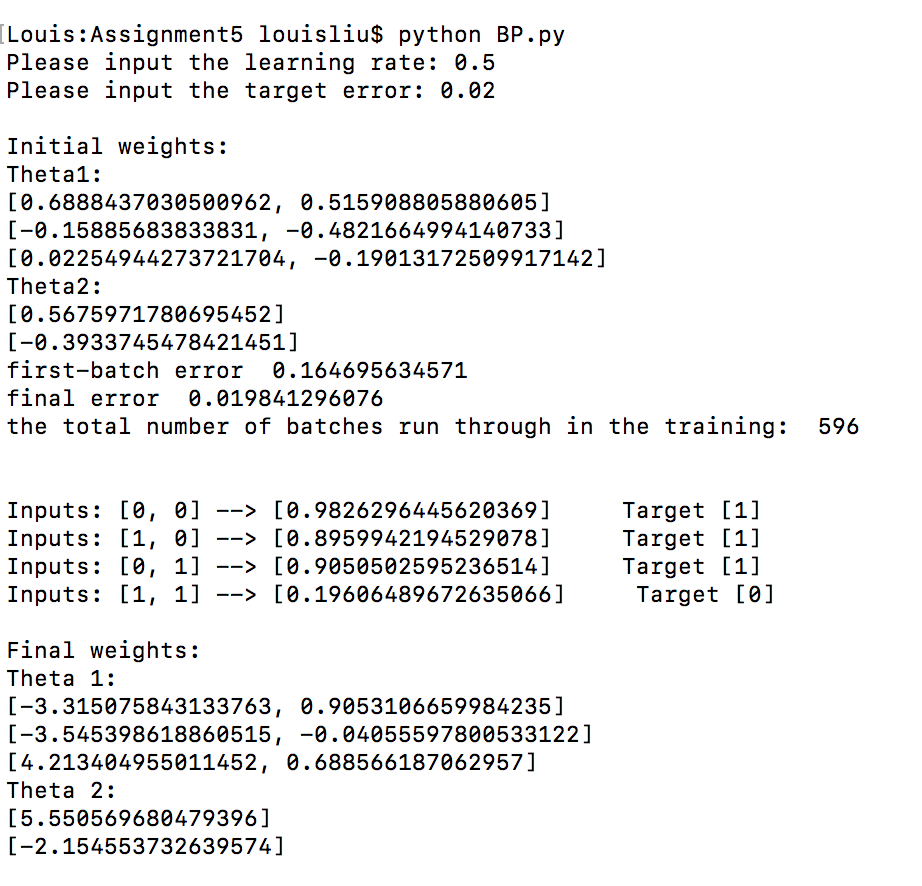


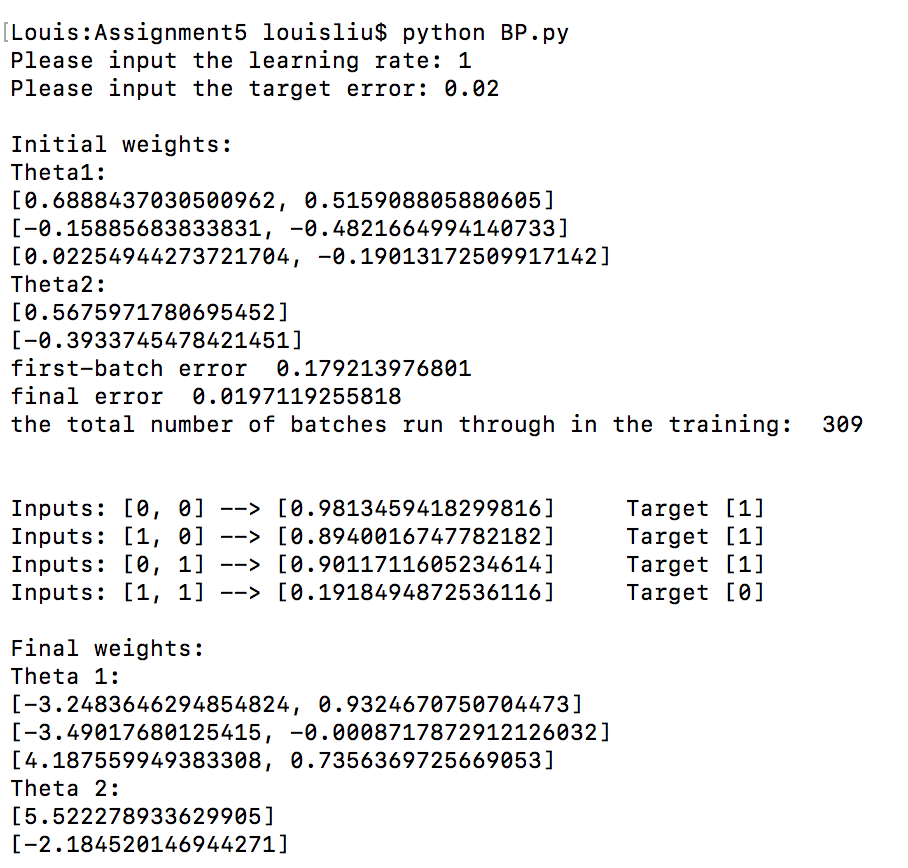




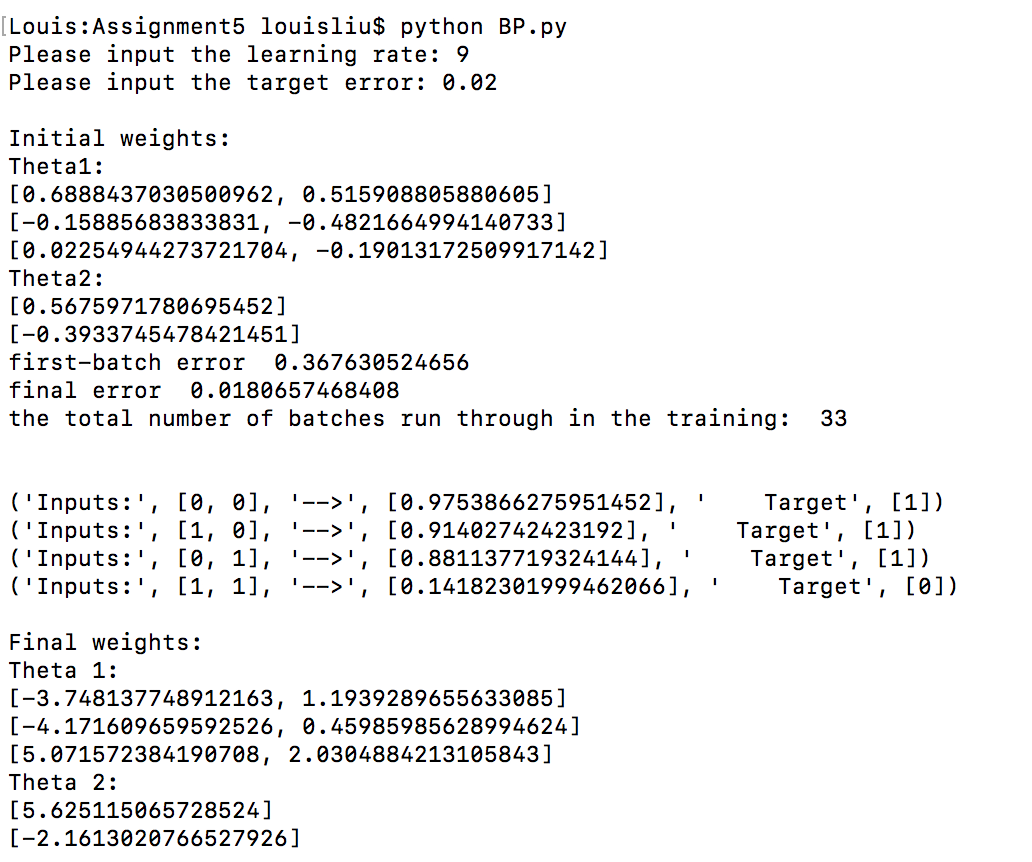
When the learning rate is 13.5, it has the lowest total number of batches run through in the training. So it is the best one.

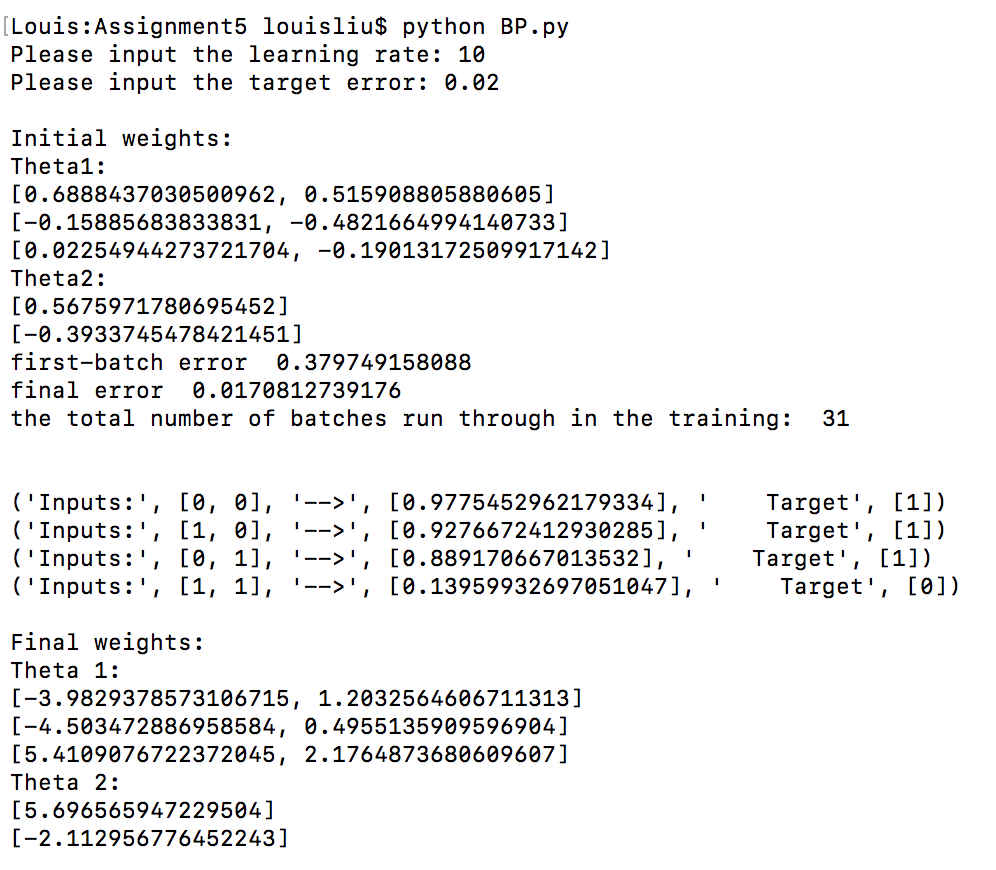
(3)

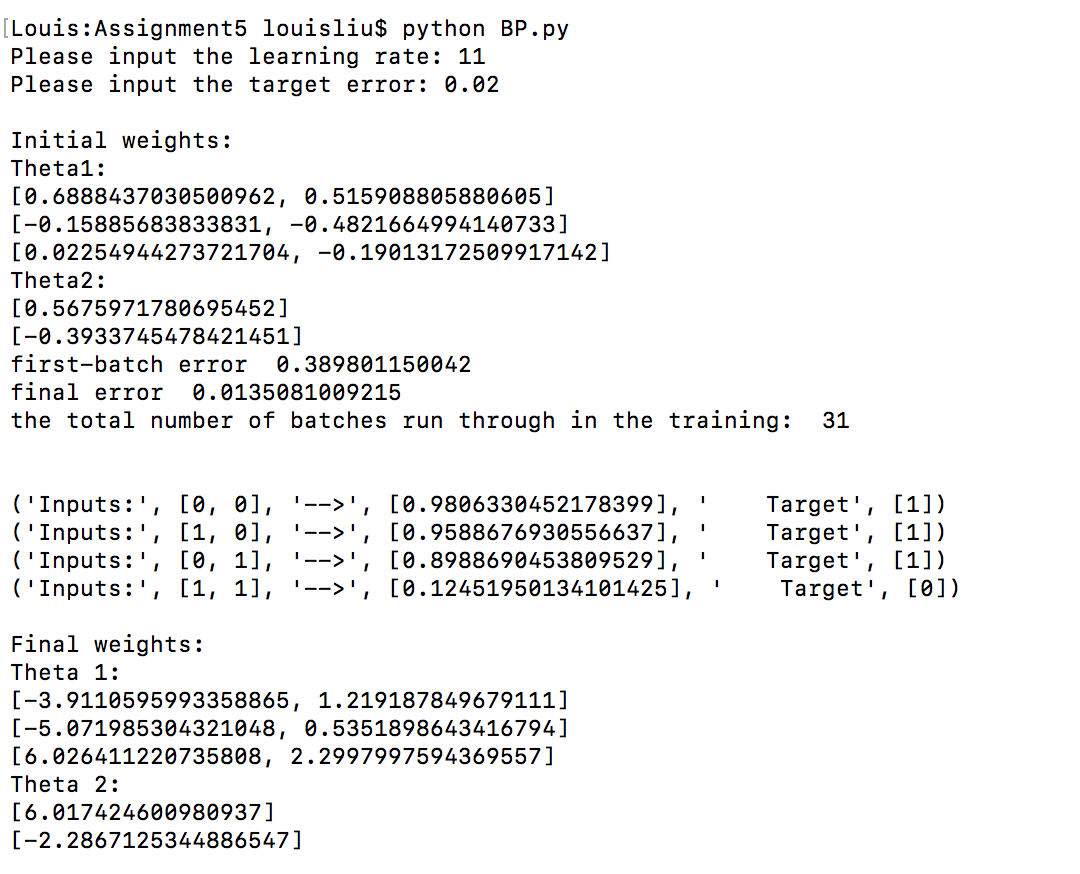




Find the best one







When the learning rate is 10 and 11, the number of batches is the same. And they are both smaller than when the rate is 9. The best learning rate is: 10

Question3:







