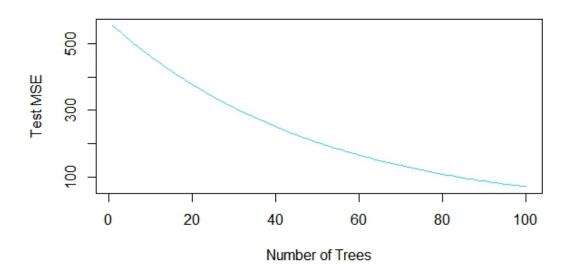
- The test MSE for Decision Stump is **110.115613031192**
- The test MSE of Boosted Decision Stump with  $\eta$  = 0.01 and B=1000 is **0.2941287193**

## **Graph for question 3:**



 As the number of trees i.e. B increases, we can see the value of test MSE decreases and will eventually come to a very low MSE that will make the model overfit the values. Also, it is known that for large value of B overfitting might occur with high variance.