

Figure 1

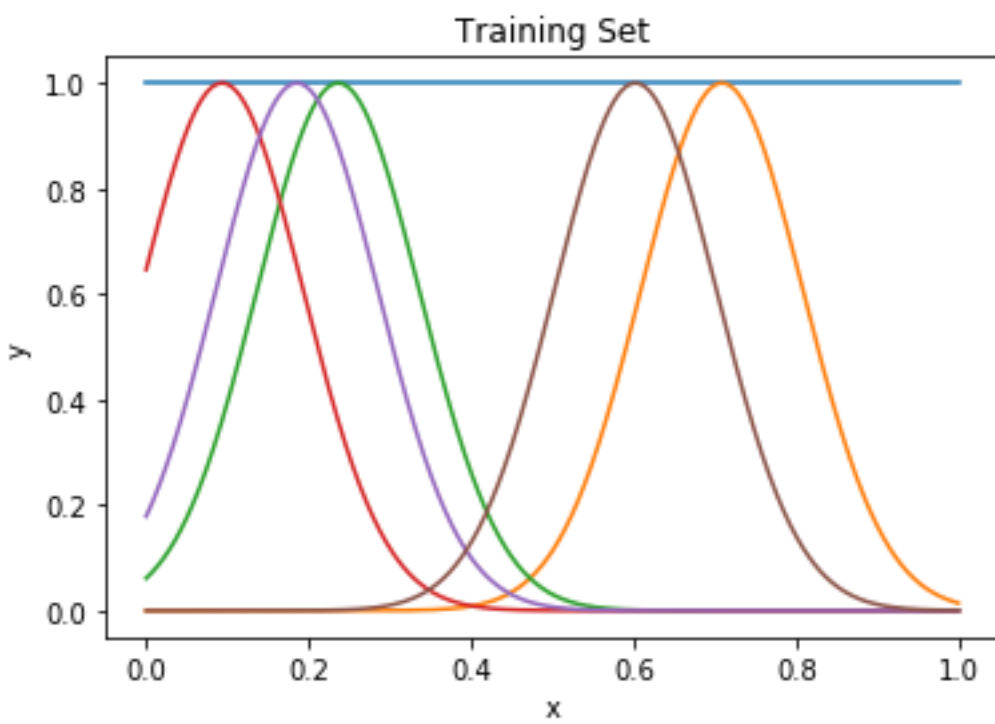


Figure 2

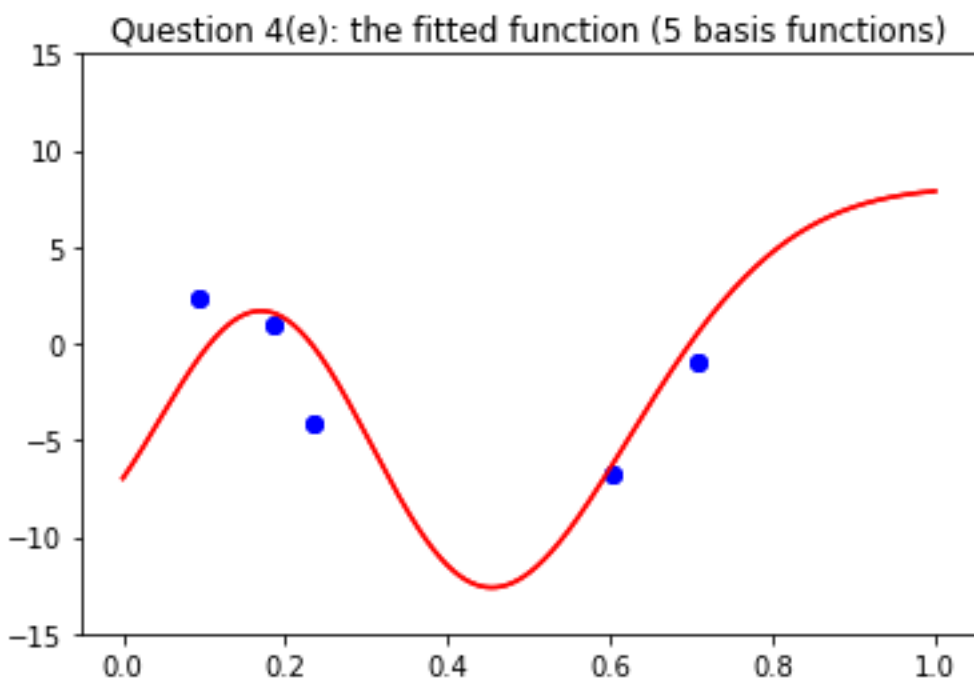


Figure 3

Question 4(f): best-fitting functions with 0-15 basis functions

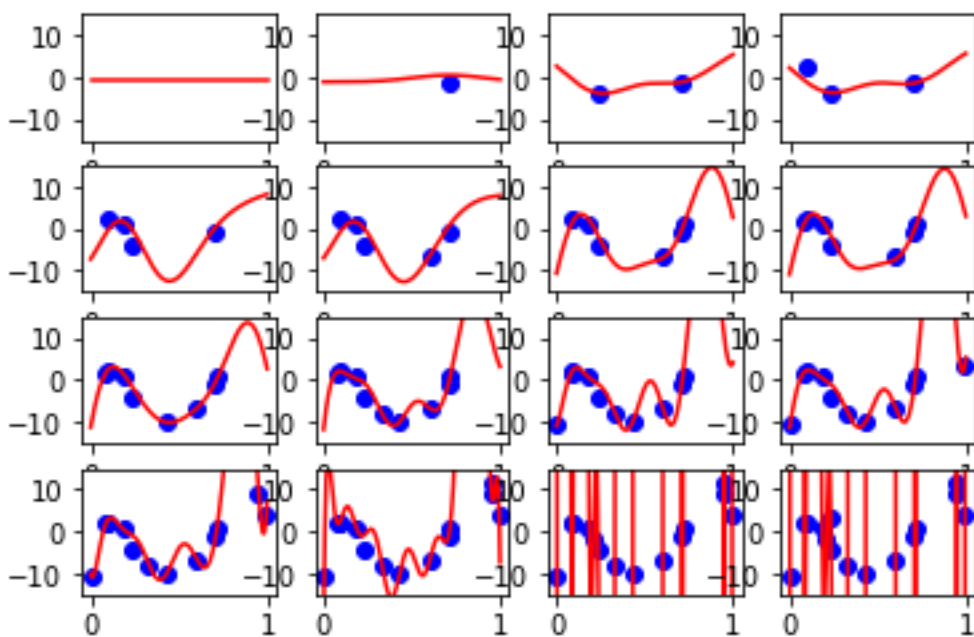


Figure 4



Figure 5

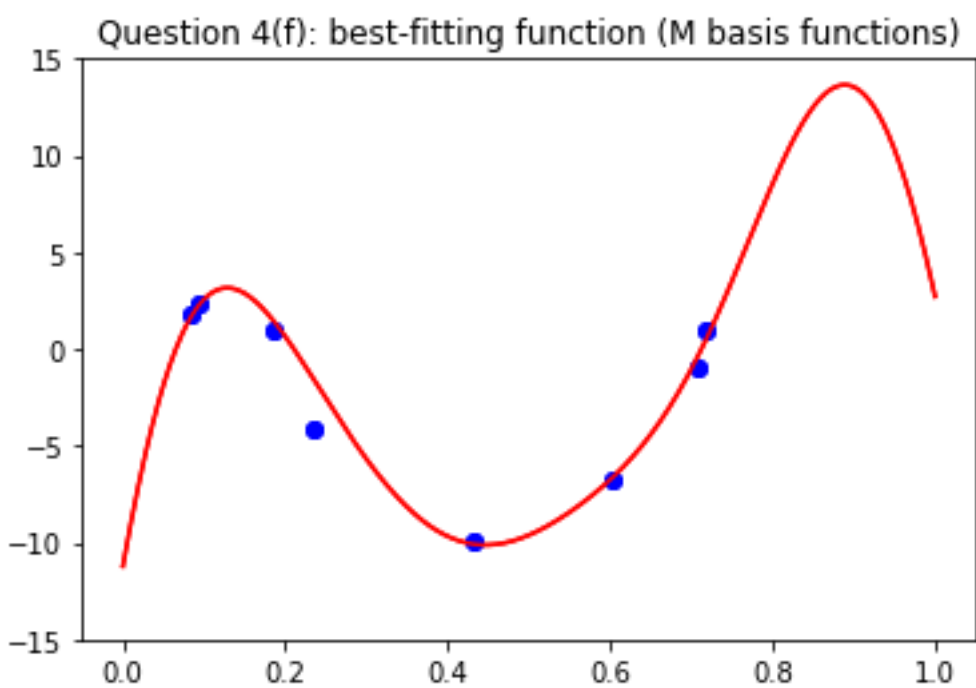


Figure 6

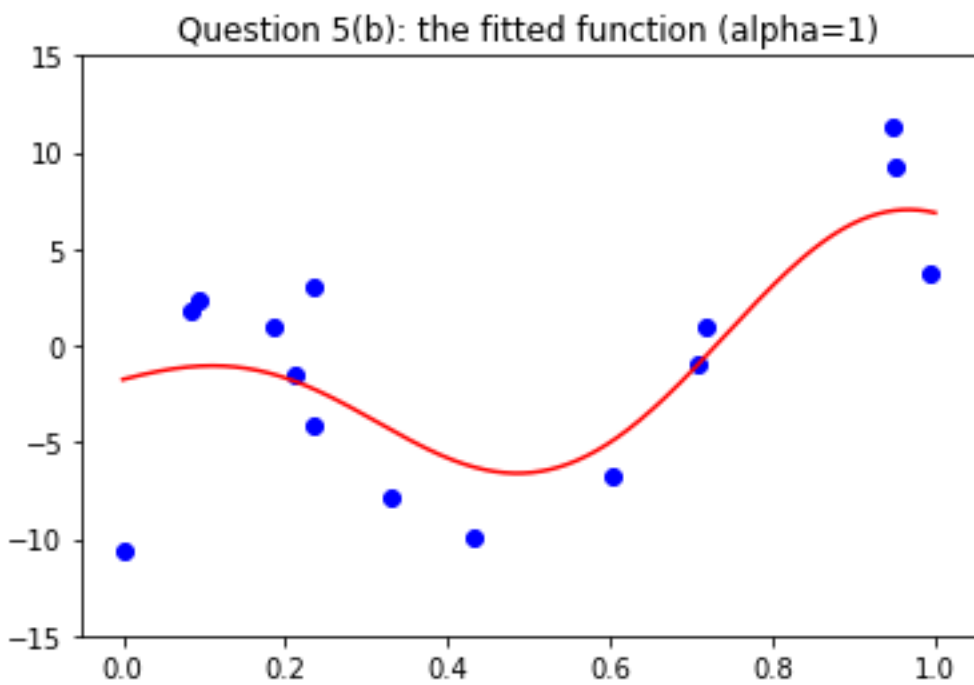


Figure 7

Question 5(c): best-fitting functions for  $\log(\alpha) = -12, -11, \dots, 1, 2, 3$

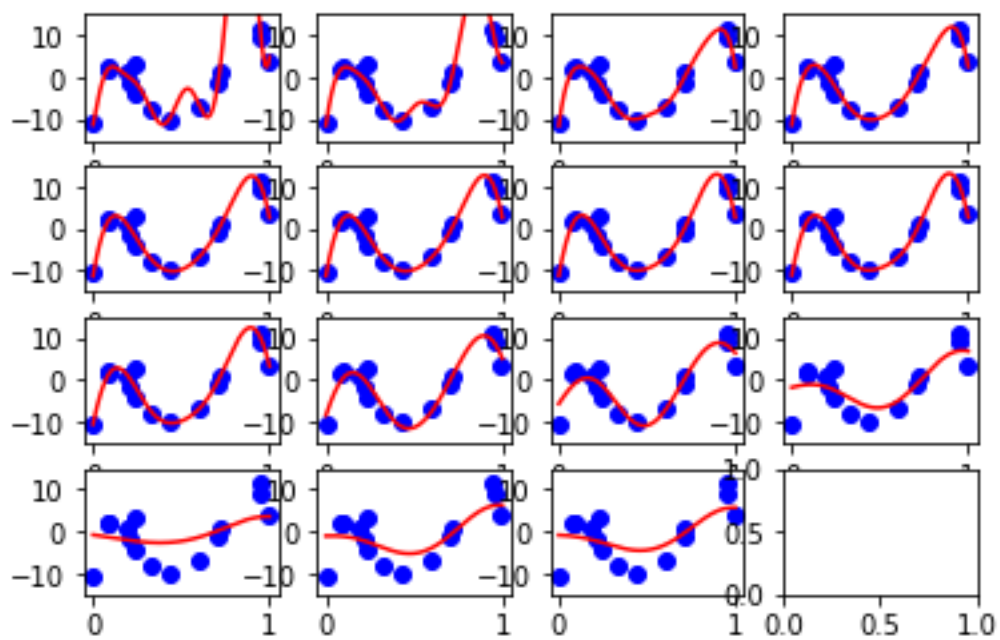


Figure 8

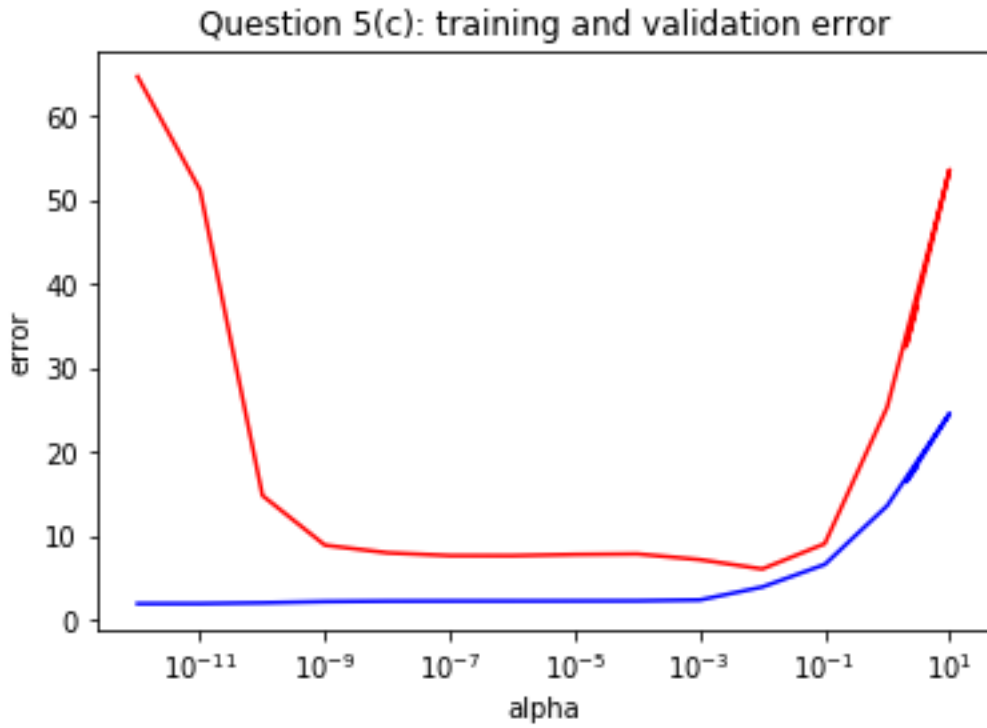


Figure 9

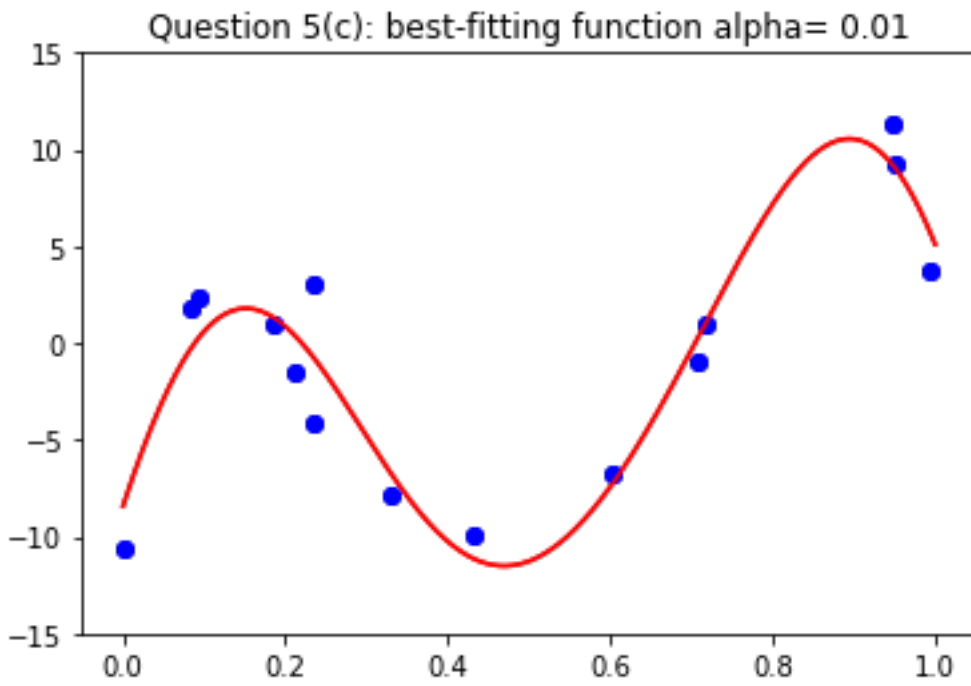


Figure 10

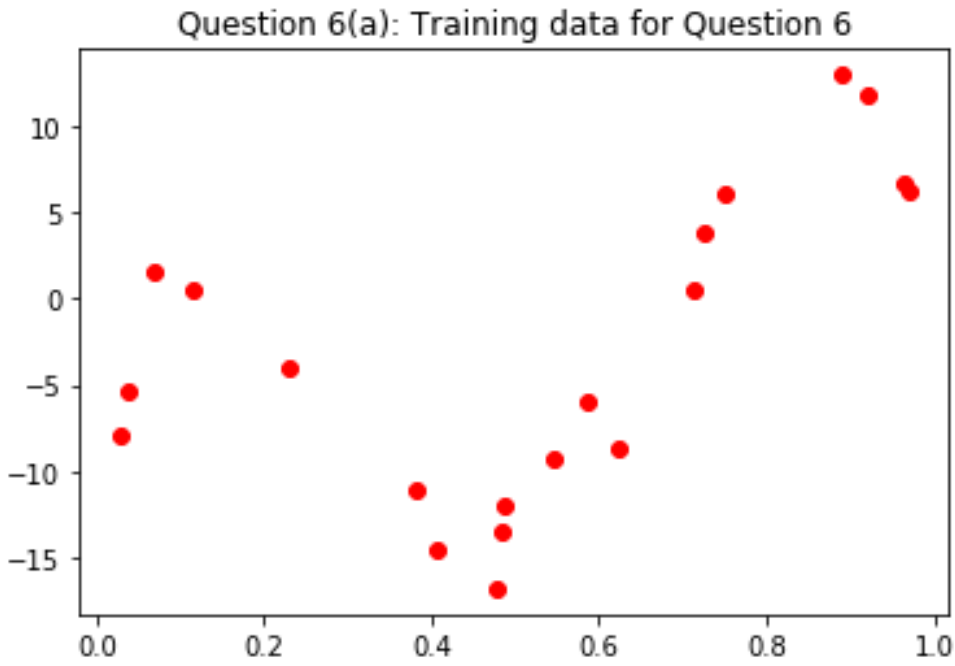


Figure 11

Question 6(c): training and validation errors during cross validation

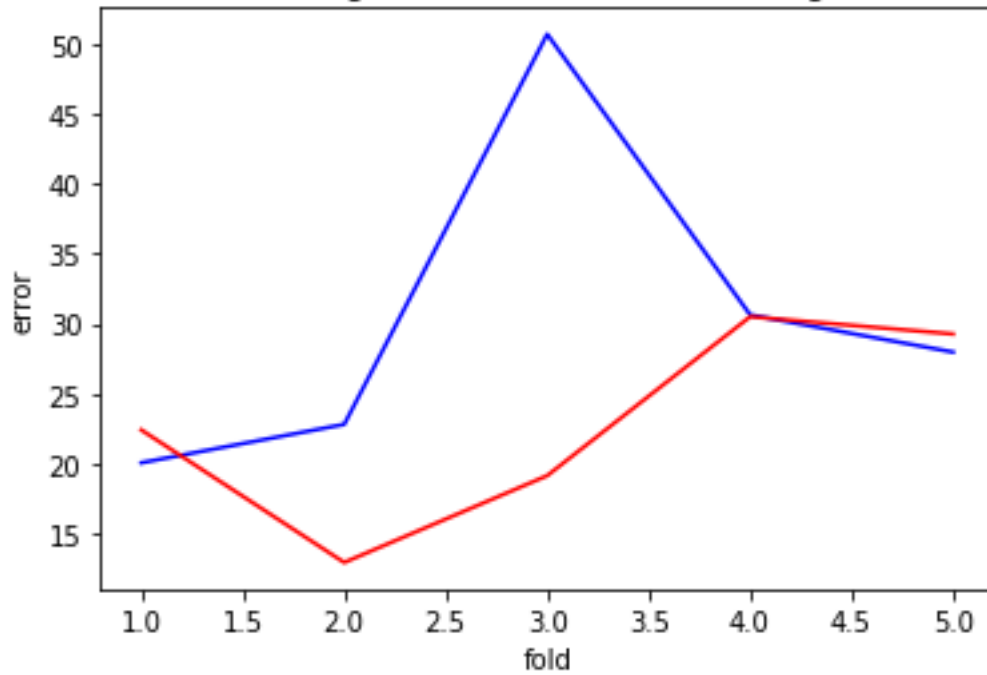


Figure 12



Figure 13

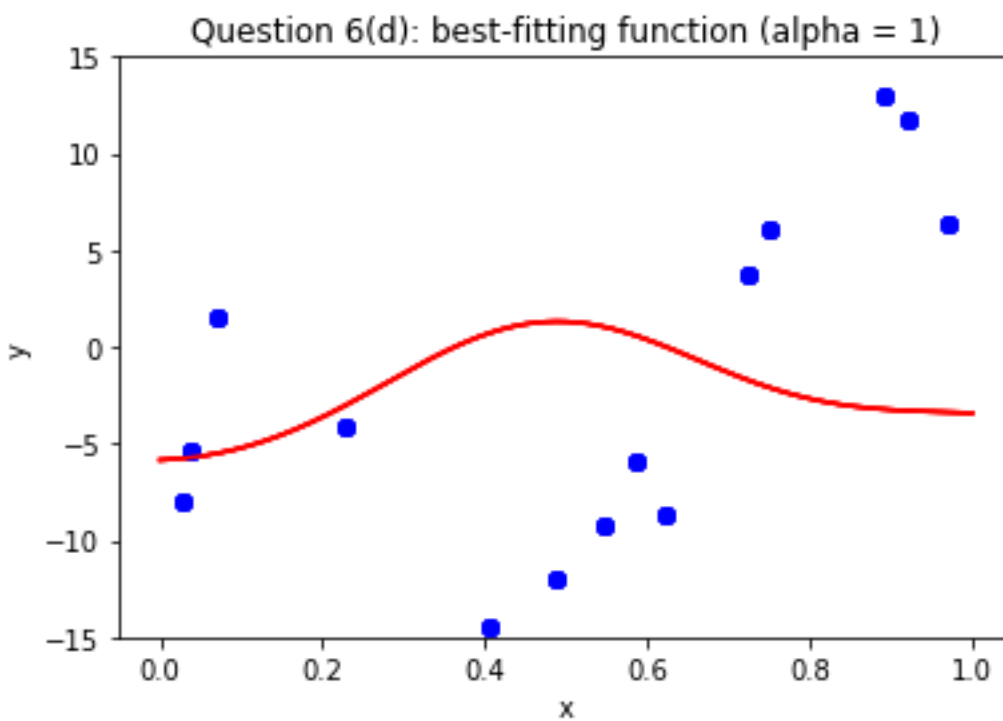


Figure 14