

5.10

For Eric plot, I think it is very clear. I think he has found the best degree polynomial. The result should be 5.

For Stanley's plot, degree from 3 to 8. don't have big differences based on error plots. So I think Stanley should adopt  $k$ -fold cross-validation to find the difference of degree from 3 to 8. more in depth.

For Kyle's plot, it might exist a situation that degree larger than 10. could have less testing error. So he should use more  $\wedge$  degree (~~10~~  $> 10$ ) value of to find the best result.

For Kenneth's plot, I found the fluctuation of training error, so I think it is more likely <sup>that</sup> the basis feature might not fit the dataset, she should change ~~as~~ other basis feature.

5.11 The best degree of Fourier basis, in terms of validation error, is 6

5.12. The best degree of polynomial basis, in terms of validation error is 2





