

6.8 Exercises

1.)

✓ (a.) The best subset model w/ k pred will have training RSS that is less than or equal to that of other 2.

✓ (b.) Cannot determine without doing more analysis, presuming 3 models have only been fit on train data (no CV yet).

(c.) ✓ (i) ~~False~~ True

✓ (ii) True

✓ (iii) False

✓ (iv) False

✓ (v) False

2.)

✓ (a.) (i) False

(ii) False

(iii) True

(iv) False

→ (iii) Is True, Lasso shrinking coef/setting them to 0 is less flexible than OLS, so more bias but less var than OLS.

✓ (b) Same as (a)

✓ (c) Nonlinear methods are more flexible, (ii) so less bias, more variance.