

ECON 257
EXERCISES 5

Classical linear model: R^2
Review questions

1. In the context of the classical linear regression model (with an intercept),
 - (a) define R^2 and \bar{R}^2 ;
 - (b) show that $\bar{R}^2 \leq R^2 \leq 1$;
 - (c) give conditions under which $\bar{R}^2 = R^2$.
2. In the context of the classical linear regression model,
 - (a) can R^2 be negative ? If so, when?
 - (b) can \bar{R}^2 be negative ? If so, when?
3. Can you relate R^2 to a test of significance ? If so, explain what this test can be.