**Stats 201 HW4**

3.15

a. Ŷ = 2.5753 – 0.324X (from R output)

b.

(1) Null hypothesis: Yij = β0 + β1Xj + εij, alternative hypothesis: Yij = μj + εij

(2) Decision rule: if Pr(>F) > 0.025, conclude Ha; if Pr(>F) ≤ 0.025, conclude H0. There is lack of fit in the fitted linear regression.

(3) Conclusion: Pr(>F) = 1.194e-06 < 0.025, so conclude Ha. (from R output)

c.

No, this test does not tell us which regression function is appropriate.