

2007 #4

(5 points) Using the Kenyan Demographic and Health Survey 2003, we found the following mean and standard deviation for the education of women raised rural and in urban areas respectively:

	Variable	Obs	Mean	Std. Dev.	Min	Max
Raised in rural areas	education	727	6.690509	4.152626	0	20
Raised in urban areas	education	236	8.411017	4.608563	0	20

Do the data given in the previous table provide statistical evidence at the 1% significance level that the average education of the women raised in urban areas is higher than the average education of the women raised in rural areas? (To answer this question, call D the difference in mean education of the two groups; suggest an estimator \hat{D} for D and for the standard error of \hat{D} ; and then use the 5 steps for hypothesis testing that we followed in class.)