ID: 009

Name:		

1. An experiment has $n_1 = 3$ plants in the treatment group and $n_2 = 7$ plants in the control group. After some time, the plants' heights (in cm) are measured, resulting in the following data:

	value1	value2	value3	value4	value5	value6	value7
sample 1:	21.3	21.8	27.2				
sample 2:	8.8	10.9	9.9	10.3	11.4	10.4	9

- (a) Determine degrees of freedom.
- (b) Determine t^* for a 99% confidence interval.
- (c) Determine SE.
- (d) Determine a lower bound of the 99% confidence interval of $\mu_2 \mu_1$.
- (e) Determine an upper bound of the 99% confidence interval of $\mu_2 \mu_1$.
- (f) Determine $|t_{\rm obs}|$ under the null hypothesis $\mu_2 \mu_1 = 0$.
- (g) Determine a lower bound of the two-tail *p*-value.
- (h) Determine an upper bound of two-tail *p*-value.
- (i) Do you reject the null hypothesis with a two-tail test using a significance level α = 0.01? (yes or no)

1.	(a)									
	(b)] .					
	(c)] .					
	(d)] .					
	(e)] .					
	(f)] .					
	(g)] .					
	(h)] .					
	(i)									