ID: 016

Name: _____

1. An experiment has n_1 = 8 plants in the treatment group and n_2 = 6 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	value8
sample 1:	137	134	157	141	128	114	166	134
sample 2:	92	102	96	97	89	101		

   (a) Determine degrees of freedom.
   (b) Determine $t^\star$ for a 98% confidence interval.
   (c) Determine *SE*.
   (d) Determine a lower bound of the 98% confidence interval of $\mu_2 - \mu_1$.
   (e) Determine an upper bound of the 98% confidence interval of $\mu_2 - \mu_1$.
   (f) Determine $|t_{\text{obs}}|$ 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 = 0.02? (yes or no)

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