

Name: _____

1. An experiment has $n_1 = 7$ plants in the treatment group and $n_2 = 5$ 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:	1.1	1.05	1.08	1.05	0.86	1.29	0.6
sample 2:	1.62	1.4	1.51	1.17	1.46		

- (a) Determine degrees of freedom.
- (b) Determine t^* 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 $|t_{obs}|$ 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 $\alpha = 0.02$? (yes or no)

1. (a)

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(b)

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(c)

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(d)

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(e)

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(f)

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(g)

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(h)

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(i)

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