Name: _____

1. An experiment has n_1 = 8 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	value8
sample 1:	9.1	11.4	9.7	8.9	11.1	8.1	9.2	13.3
sample 2:	12.4	12.4	18.6	14.5	13.9	12.1	10.6	

(a) Determine degrees of freedom.

(b) Determine $t^\star$ for a 95% confidence interval.

(c) Determine SE.

(d) Determine a lower bound of the 95% confidence interval of $\mu_2 - \mu_1$.

(e) Determine an upper bound of the 95% 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 $\alpha = 0.05$? (yes or no)

1. (a) ☐☐☐☐☐☐.☐☐☐

(b) ☐☐☐☐☐☐.☐☐☐

(c) ☐☐☐☐☐☐.☐☐☐

(d) ☐☐☐☐☐☐.☐☐☐

(e) ☐☐☐☐☐☐.☐☐☐

(f) ☐☐☐☐☐☐.☐☐☐

(g) ☐☐☐☐☐☐.☐☐☐

(h) ☐☐☐☐☐☐.☐☐☐

(i) ☐