Name: _____

1. An experiment has n_1 = 8 plants in the treatment group and n_2 = 4 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:	1.91	1.64	1.7	1.72	1.23	1.29	1.61	1.49
sample 2:	0.89	0.96	1.12	0.8				

   (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 $|t_{obs}|$ 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) ☐