Name: _____

1. An experiment has $n_1 = 8$ plants in the treatment group and $n_2 = 8$ 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:	9.4	9.7	10.6	10.9	12.3	9.9	9.6	12
sample 2:	13.1	11.4	11.1	9.6	12.8	10.6	10.3	14.4

  (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 $|t_{obs}|$ 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) ☐