Name:

1. An experiment has n_1 = 3 plants in the treatment group and n_2 = 3 plants in the control group. After some time, the plants' heights (in cm) are measured, resulting in the following data:

	value1	value2	value3
sample 1:	13.9	9.8	7.9
sample 2:	23.3	22.7	21.3

(a) Determine degrees of freedom.

(b) Determine $t^\star$ for a 99% confidence interval.

(c) Determine *SE*.

(d) Determine a lower bound of the 99% confidence interval of $\mu_2 - \mu_1$.

(e) Determine an upper bound of the 99% 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 = 0.01? (yes or no)

1. (a) ☐☐☐☐☐☐ . ☐☐☐

(b) ☐☐☐☐☐☐ . ☐☐☐

(c) ☐☐☐☐☐☐ . ☐☐☐

(d) ☐☐☐☐☐☐ . ☐☐☐

(e) ☐☐☐☐☐☐ . ☐☐☐

(f) ☐☐☐☐☐☐ . ☐☐☐

(g) ☐☐☐☐☐☐ . ☐☐☐

(h) ☐☐☐☐☐☐ . ☐☐☐

(i) ☐