1a)
H_0: $\mu = 10.5$
H_a: $\mu < 10.5$
b) $t = -2.375$
c) ignoring the negative, and using 39 degrees of freedom, $2.023 < t < 2.426$
d) $1\% <$ tail $< 2.5\%$, $1\% < p < 2.5\%$
e) $p < \alpha$, Reject H_0, Accept H_a
f) We have evidence that the average number of plants for all households in West Covina is less than 10.5 plants.
g) Check

2a)
H_0: $\mu = 2.8$
H_a: $\mu > 2.8$
b) $t = 1.933$
c) using 100 degrees of freedom, $1.660 < t < 1.984$
d) $2.5\% <$ tail $< 5\%$, $2.5\% < p < 5\%$
e) $p > \alpha$, Fail to Reject H_0, Fail to Accept H_a
f) We do not have evidence that the average number of cars owned by all residents of North Verdes is more than 2.8 cars.
g) Check

3)a) 2.045
b) xbar = 5.47

4)a) No
b) No
c) Teacher says never accept a null hypothesis. You go to math jail.