1a)
H_0: $\mu_d = 0$, where $\mu_d = \mu_P - \mu_G$
H_a: $\mu_d \neq 0$
b) $t = 1.835$
c) $5\% < p < 10\%$
d) $p < \alpha$, Reject H_0, Accept H_a
e) We have evidence that the two brands do not get equal ratings among all stats students.
f) t check, p = 8.8% check

2) We are 90% confident that for all stats students, Palmer gets a higher rating than Ghirardelli by an average of between 0.04 and 2.09 points.

3a)
H_0: $\mu_d = 0$, where $\mu_d = \mu_B - \mu_A$
H_a: $\mu_d > 0$
b) $t = 1.646$
c) $5\% < p < 10\%$
d) $p > \alpha$, Fail to Reject H_0, Fail to Accept H_a
e) We do not have evidence that brand B is better than brand A, on average, for all cars.
f) t check, p = 6.3% check

4) We are 98% confident that for all cars, the average difference in miles driven on 5 gallons between these two brands of gas is between
-2.641, which means A goes 2.641 miles farther than B, and
$+11.041$, which means B goes 11.041 miles farther than A.
Note than zero is in the interval, which means there may be no difference between the brands.