Homework Solutions
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Exercise 10

Show all seven steps.

1. Let μ be the average speed of drivers at this location.

   $H_0: \quad \mu = 70$
   $H_1: \quad \mu > 70$

2. $\alpha = 0.05$.

3. $t = \frac{\overline{x}-\mu_0}{s/\sqrt{n}}$. (We have to assume that the sampled population is normal.)

4. $t = \frac{73.2-70.0}{5.1\sqrt{16}} = \frac{3.2}{1.275} = 2.510$.

5. p-value = `tcdf(2.510,E99,15)` $= 0.0120$.

6. Reject H_0.

7. The average speed is greater than 70 mph.