Activity #12

40.

Test,

$$t = \frac{\bar{x} - \mu}{\frac{s}{\sqrt{n}}}$$

$$= \frac{51.3 - 48}{\frac{1.2}{\sqrt{10}}} = \frac{3.3}{0.3795} = 8.6963$$

The degree of freedom is

$$df = n - 1$$

$$10 - 1 = 9$$

- The critical value of 't' for one tail test at the 5% level of significance and 9 degrees of freedom is 1.833.

- So, we Reject the Null hypothesis. Hence conclude that there is sufficient evidence that the data provided is true. The average exceeds 48 mpg.