The Osborne Manufacture makes a soft drink dispensing machine that allows customers to get soft drinks from the machine in a cup with ice. When the machine is running properly, the average number of fluid ounces in the cup should be 14. Periodically the machines need to be tested to make sure that they have not gone out of adjustment. To do this, six cups are filled by the machine and a technician carefully measures the volume in each cup. In one such test, the following data were observed:



a. Which of the following would be the correct null hypothesis if the company wishes to test the machine?

a. 

 b. 

 c. 

 d. None of the above.

b. Calculate the 95 % confidence interval. Do you reject or fail to reject the null hypothesis?