HW 11 Hypothesis Testing

A machine produces metal rods used in an automobile suspension system. A random sample of 15 rods is selected, and the diameter is measured. The resulting data (in millimeters) are as follows:

8.24   8.25   8.20   8.23   8.24
8.21   8.26   8.26   8.20   8.25
8.23   8.23   8.19   8.28   8.24

1.   Is there evidence to support the claim that diameter mean exceeds 8.25 mm.? Use $\alpha = 0.05$.

2.   What is the formula# used? See the testing chart.

3.   Show 5 steps of the hypothesis testing with computation and decision graph

4.   Use the built-in function;   t.test(diameter, mu=8.25,alter="greater") to confirm your results.