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**(Excel sheet showing all the calculations is also attached)**

**1:**

Hypothesis testing:

Assuming that the breast height diameter is b, then

H0 => b=20

Ha => b!=20

Hence, it’s a two tailed graph

For 95% t value for a two tailed graph is: 2.342

Using excel’s abilities to find the 95% CI of difference of means, we get: CI=(1.94, -1.36)

**f)** In order to test the given hypothesis,

for alpha = 0.05 and B1 = 0,

We get p-value = 0.7547 ,

Equation = Comparison of means: t-value

We see that p > alpha, and hence, we do not reject the null hypothesis

**g)** Using excel’s ability, we get R2 = 0.656915