

Calculating a T test

Hypothesis

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Null hypothesis

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North facing

Sample number	X	\bar{X}	$(x - \bar{x})^2$
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
			Σ

Standard deviation for North facing leaves calculate here:

$$SD = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n - 1}}$$

South facing

Sample number	X	\bar{X}	$(x - \bar{x})^2$
1			
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19			
20			
			Σ

Standard deviation for South facing leaves calculate here:

$$SD = \sqrt{\frac{\Sigma(x - \bar{x})^2}{n - 1}}$$

Calculate T here:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

Calculating degrees of freedom:

$$\text{Degrees of freedom} = n_1 + n_2 - 2$$

Degrees of freedom

Critical value

Can you accept or reject the hypothesis?

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Conclusion:

What did your results show? Discuss your data and means. Are your results significant? What does that mean? What is the science behind the results you got?

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