

## Practice Set 16 Small Sample Hypothesis Testing Using Student's t Test

- I. Darin wants to determine whether there is a difference in the number of sick days taken by employees based upon their education. A sample of 11 high school graduates had a mean of 5 sick days per year and a standard deviation of 2.5 days. Twelve non-graduates averaged 10 sick days per year. Their standard deviation was 3.25 days. Is there a difference in sick days taken based upon education? Use the .01 level of significance.

Data Set For People Using Statistics Software
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<b>Graduates' sick days:</b>
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5, 4, 7, 2, 7, 7, 0, 3, 6, 8, 6
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<b>Non-graduates' sick days:</b>
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9, 13, 8, 6, 14, 6, 12, 16, 8, 10, 7, 11
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- II. Darin conducted a training program for 5 recently-hired employees. Test at the .01 level whether the training program increased employee efficiency.

Employee	Efficiency Rating	
	Before	After
1	8	9
2	6	8
3	7	8
4	7	9
5	8	10