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EDG500

3/11/2023

Lab 12 Step by Step

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Attitude Toward Math	20	3.7000	2.55672	0.57170

One-Sample Test

	Test Value = 4.0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Attitude Toward Math	-0.525	19	0.606	-0.30000	-1.4966	0.8966

Figure 12.5. Output with a test value of 4.00

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Attitude Toward Math	20	3.7000	2.55672	0.57170

One-Sample Test

	Test Value = 2.50					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Attitude Toward Math	2.099	19	0.049	1.20000	0.0034	2.3966

Figure 12.6. Output with a test value of 2.50

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Lab 12 Exercise:

T-Test

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Washington Elementary School	12	32.7500	4.02549	1.16206

One-Sample Test

	Test Value = 32.00					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Washington Elementary School	0.645	11	0.532	0.75000	-1.8077	3.3077

Figure 12.7. Output with a test value of 32.00

a. What is the value of the mean for the sample at Washington Elementary School? 32.75
b. What is the value of *t*? .645
c. What is the probability associated with this *t* score? .532
d. Is the difference between the district mean of 32.00 and the mean at Washington Elementary School statistically significant at the .05 level? No, it is insignificant.
e. Write a statement of the results of the significance test.
   For the Washington Elementary School sample, the values of the mean and standard deviation are 32.75 and 4.03, respectively. The school district mean is 32.00. The difference between the sample mean and the district mean is not statistically significant at the .05 level (t = .645, df = 11)