

Practice with t-tests

Work in teams or independently as you wish.
Study the three outputs.

1. Which output was from a ONE SAMPLE t-test? output #2
2. Which output was from a RELATED SAMPLES (CORRELATED SAMPLES) t-test? output 3 *paired? has test value*
3. Which type of t-test is represented by the remaining output? #1 = independent samples t-test *compares the difference of means*
4. How many subjects were used in the one sample t-test? 80
5. Did the independent samples t-test have the same number of subjects in each group? 45 how did you know? *df differs*
6. How many subjects were included in the related samples t-test? 22
7. How many of the t-tests were statistically significant at the .01 level? all
8. How many of the t-tests were statistically significant at the .05 level? all
9. Using the information from the one sample t-test output, what was the null hypothesis. test value was 47
10. Using the information from the one sample t-test output, what was the 95% confidence interval of the mean? ~~33.26368 - 66.61131~~ by SD
show work
48.13 - 51.85 *SE_x*
.94827 x 1.96 then add/sub from mean
or see next page
11. What was the null hypothesis for output number 1?
12. What was the null hypothesis for output number 3?
diff of memory - post = 0
13. Using standard form (eg. $t(98) = 5.2$ $p < .05$) report the results of:
output one $t(38) = 2.905$ $p < .01$
output two $t(79) = 3.150$ $p < .01$
output three $t(21) = 15.200$ $p < .001$

can have different numbers OUTPUT #7

day	N	Mean	Std. Deviation	Std. Error Mean
ach blue	20	46.1000	9.34654	2.08995
ach green	20	54.4000	8.71417	1.94855

		t-test for Equality of Means				t-test for Equality of Means		
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
ach	Equal variances assumed	-2.905	38	.006	-8.30000	2.85740	-14.08450	-2.51550
	Equal variances not assumed	-2.905	37.815	.006	-8.30000	2.85740	-14.08543	-2.51457

	N	Mean	Std. Deviation	Std. Error Mean
ach		49.9875	8.48154	.94827

OUTPUT #2
#10:

		Test Value = 47					
		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
ach		3.150	79	.002	2.98750	1.1000	4.8750

47 + 1.10 = lower bound
47 + 4.875 = upper bound

OUTPUT #3

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
pair 1	memory - post	-11.81818	3.64674	.77749	-13.43506	-10.20131	-15.200	21	.000