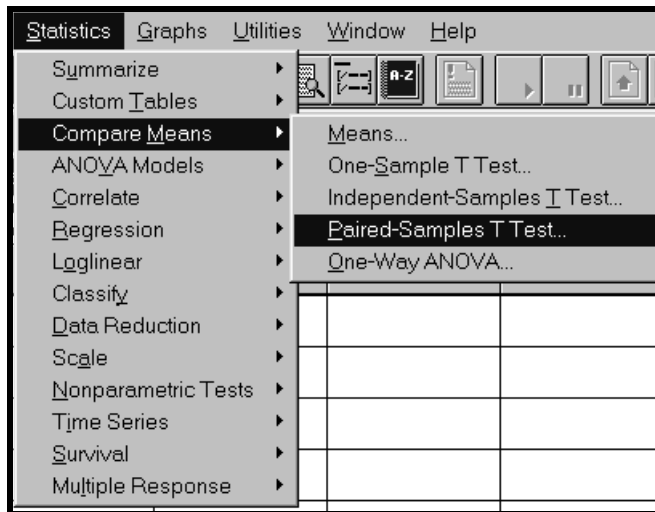


COMPARING THE DURABILITY OF TIRES

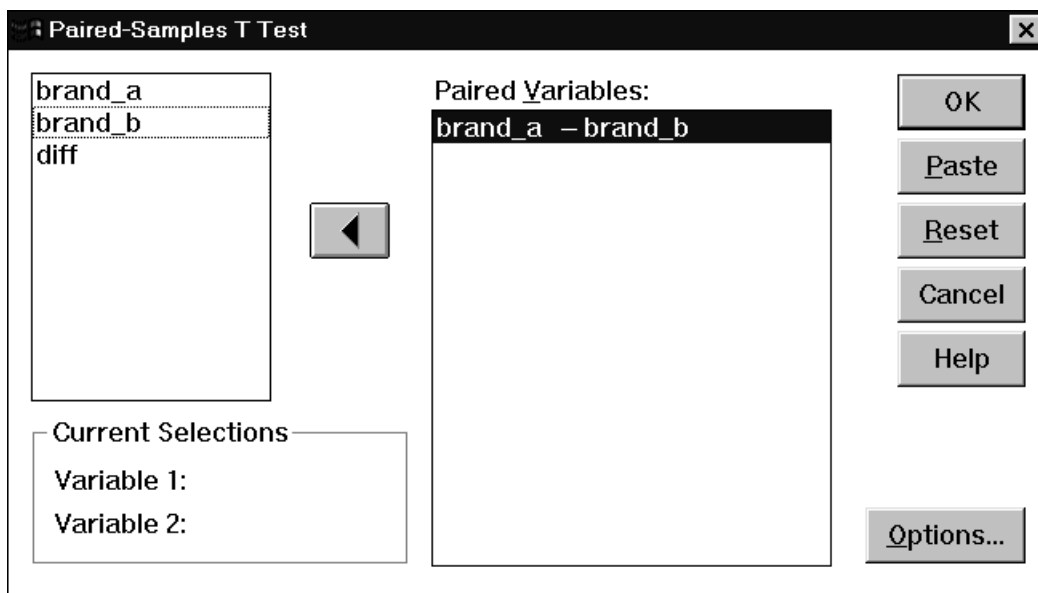
11. Using Parametric Methods to Make Inferences

In order to see whether there is a difference between the average tread depth for brand A and brand B tires, we will use the t-test for paired samples problems. The statistic can be accessed in SPSS by using *The Paired-Samples T Test...* command.

We can carry out the test if there is no reason to suspect that the assumption of normality for the population of differences is violated. In order to access the procedure, click on *Statistics*, and then on *Independent-Samples T Test*.



The following dialog box is displayed:



Highlight the variables names and transfer them to the *Paired Variables* box by clicking on the arrow. Click on OK to run the test.

The following output will be displayed:

t-tests for Paired Samples						
Variable	Number of pairs	Corr	2-tail Sig	Mean	SD	SE of Mean
BRAND_A	20	.902	.000	6.4370	.622	.139
BRAND_B				6.1605	.616	.138
Paired Differences						
Mean	SD	SE of Mean	t-value	df	2-tail Sig	
.2765	.273	.061	4.52	19	.000	
95% CI (.149, .404)						

The output in a slightly different form is displayed in Section 7.