Answers to additional health exercises

Chapter 17 T-tests

Follow the procedures in the section on independent samples t-tests to compare the mean sleepiness ratings (Sleepiness and Associated Sensations Scale total score : *totSAS*) for males and females (*gender*).

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
sleepy & assoc sensations scale	female	144	27.84	10.699	.892
	male	107	23.63	9.813	.949

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
sleepy & assoc sensations scale	Equal variances assumed	.511	.476	3.196	249	.002	4.214	1.319	1.617	6.811
	Equal variances not assumed			3.237	238.2	.001	4.214	1.302	1.649	6.779

Levene's test was not significant, therefore we could read across the 'equal variances assumed' line to see that the difference between male's scores (mean=23.63, SD=9.81)) and females' (mean=27.84, SD=10.7) is statistically significant [t(249)=3.197, p=.002].