







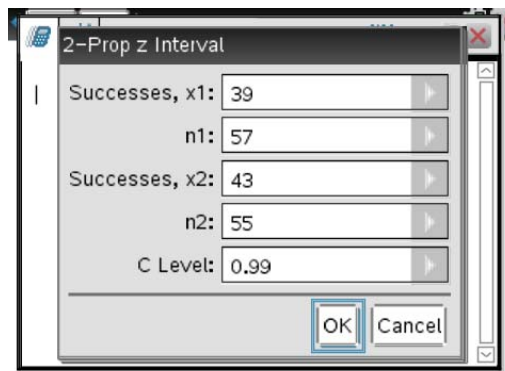
23. Confidence interval for a difference in proportions on the calculator

The TI-Nspire can be used to construct a confidence interval for $p_1 - p_2$. We'll demonstrate using the example on page 628. Of $n_1 = 57$ subjects who took naproxen and Valium, $X_1 = 39$ reported reduced lower back pain after a week. Of $n_2 = 55$ subjects who took naproxen and placebo, $X_2 = 43$ reported reduced lower back pain after a week. To construct a confidence interval:

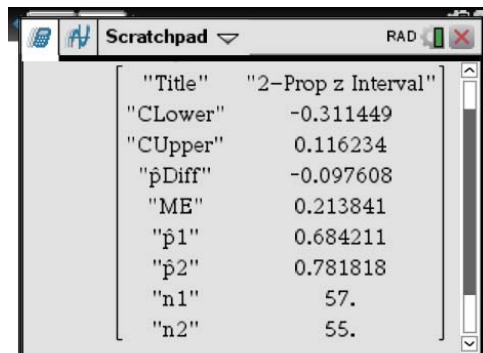
Press  ( on ) to insert a *Calculator Scratchpad*.

Press  → *Statistics* → *Confidence Intervals* → *2-Prop z Interval*.

A dialogue box will appear. Enter the values as shown in the box.  to  and press .



Successes, x1:	39
n1:	57
Successes, x2:	43
n2:	55
C Level:	0.99



"Title"	"2-Prop z Interval"
"CLower"	-0.311449
"CUpper"	0.116234
"pDiff"	-0.097608
"ME"	0.213841
"p1"	0.684211
"p2"	0.781818
"n1"	57.
"n2"	55.