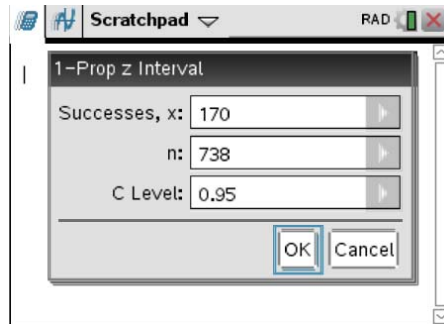


## 17. Confidence interval for a population proportion

The TI-Nspire can be used to construct a confidence interval for an unknown population proportion. We'll demonstrate using the example on page 517. Of  $n = 738$  cell phone users surveyed,  $X = 170$  admitted to walking into something or someone while talking on their cell phone.

To construct a confidence interval:

- Press  $\left[ \frac{\square}{\square} \right]$  ( $\left[ \frac{\square}{\square} \right]$  on  $\left[ \text{A} \right]$ ) to insert a *Calculator Scratchpad*.
- Press  $\left[ \text{menu} \right] \rightarrow \text{Statistics} \rightarrow \text{Confidence Intervals} \rightarrow \text{1-Prop z Interval}$ .
- A dialogue box will appear: Enter the values as shown in the box.  $\left[ \text{tab} \right]$  to  $\left[ \text{OK} \right]$  and press  $\left[ \text{enter} \right]$ .



The lower and upper bounds of the confidence interval are reported, along with the sample proportion  $\hat{p}$ , margin of error (ME), and the sample size.

