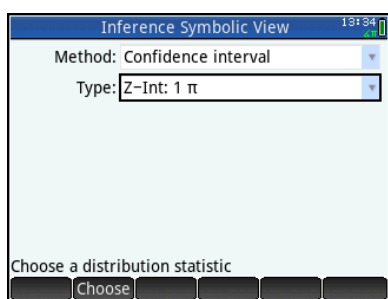# TECHNOLOGY CORNER for Section 8.2, Page 501

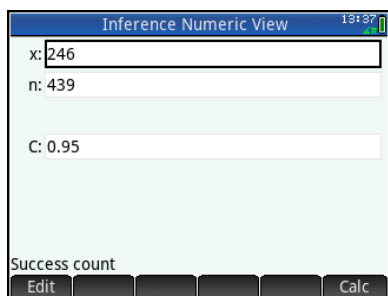## 15. Confidence interval for a population proportion on HP Prime

HP Prime can be used to construct a confidence interval for an unknown population proportion. We'll demonstrate using the previous example. Of $n = 439$ teens surveyed, $X = 246$ said they thought that young people should wait to have sex until after marriage.

1. To construct a 95% confidence interval:
   - Press ⬛ and tap the *Inference* app icon.
   - Select the **Method** field, tap ⬛Choose⬛ and select *Confidence Interval*
   - In the **Type** field, select *Z-Int: 1 π*

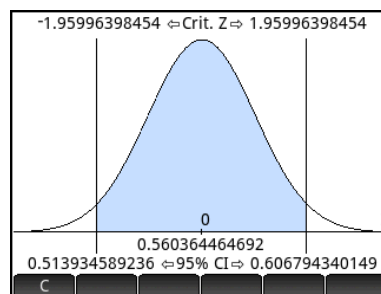   - Press ⬛ to enter Numeric view. Enter x=246, n=439, and C=0.95.

   - Tap ⬛Calc⬛ to see the results numerically.

   - Tap ⬛OK⬛ to return to Numeric view
2. You can also view the confidence interval graphically.

   - Press ⬛ to see Plot view. The confidence interval is shown at the bottom, with the $\widehat{p}$ value and the critical z-values.

   - Tap ⬛C⬛ to activate the dynamic confidence interval. Press ⬆ and ⬇ to increase and decrease the confidence level and see the effect on the size of the confidence interval.