

## 15. TECHNOLOGY CORNER

# CONFIDENCE INTERVAL FOR A POPULATION PROPORTION

TI-Nspire instructions in Appendix B; HP Prime instructions on the book's Web site.

The TI-89 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. To construct a confidence interval:

### TI-89

- In the Statistics/List Editor, press **[2nd]****[F2]** (**[F7]**) and choose 1-PropZInt.
- When the 1-PropZInt screen appears, enter  $x = 246$ ,  $n = 439$ , and confidence level 0.95.

- Highlight "Calculate" and press **[ENTER]**. The 95% confidence interval for  $p$  is reported, along with the sample proportion  $\hat{p}$  and the sample size, as shown here.