

**Data and Chance notes**  
**Chapter 21**

Below are terms from the readings. Write definitions and examples in the spaces provided. Answer the questions where indicated.

**Chapter 21: Confidence intervals, again**

What is the role of the  $z^*$  in the formula for confidence intervals?

A recent poll asked 1000 people if they were reducing their Christmas spending this year. Thirty-five percent said yes. Find the 80%, 90%, and 95% confidence intervals for the proportion of people who are reducing their Christmas spending. (Round margins of error to three decimal places.)

How do the lengths of the intervals react to a change in confidence level? How can that be explained?