

# Chapter 21: The Accuracy of Percentages

The definition of the confidence interval and the technique of calculating it constitute one of the main ideas of the course.

Confidence intervals are of wide-reaching importance in real life.

In 21.2, the actual assumptions and procedure to set up the calculations should be easy to learn.

Section 21.1: Introduction and definitions—read carefully. The box on page 378 is important.

Suggested problems for study: A: pages 379 and 380: 1, 2, 7;  
and, for extra practice, problems 3, 4, 5, 8, and 9 on page 380.

Section 21.2: The main procedure of the chapter.

Suggested problems for study: B: page 383: 1, and 2; also a review problem from chapter 20: 3.

Section 21.3: Just read. These points will take some work to understand. The boxes on pages 385 and 386 are important summaries.

Suggested problems for study: C: pages 386 and 387: 1–6, 8; and (hard) page 387: 7.

Section 21.4: Just read.

Suggested problems for study: D: pages 388 and 389: 1 and 2.

Section 20.5: Just read.

Suggested problems for study: E: page 390: 1 and 2.

**Chapter Summary:** page 394: points 1–5 are important, and point 6 is also worth noting.

## Review Exercises

**Homework** (pages 392 and 393): 5, 6, 9, 12 (all four of these are core problems)

### Comments on HW:

Problem 5 is very basic and tests computational technique.

Problem 6 is a very simple question that gets at the heart of the theory of the course. Think about it before answering; it is not tricky, but it is extremely important.

Problem 9 checks your knowledge of the conditions and the process of setting up that must come before calculations are made. I'd be particularly interested in the explanation of your answer.

Problem 12 tests your knowledge of the theory that enables the results of this chapter. Like Problem 6, it is simple but extremely important. Give careful thought to both your answer and your explanation.

Also look at problems 4, 7, 8, and 14 on pages 392–394; and—if you want more practice—work on problem 1 on page 391 and problems 10, 11, and 13 on page 393.

Problem 13 repeats problem 5 from the Chapter 18 assignment; problem 11 is similar to problem 7 from Chapter 17.