**9.54** Faced with rising fax costs, a firm issued a guideline that transmissions of 10 pages or more

should be sent by 2-day mail instead. Exceptions are allowed, but they want the average to be 10

or below. The firm examined 35 randomly chosen fax transmissions during the next year, yielding

a sample mean of 14.44 with a standard deviation of 4.45 pages. (a) At the .01 level of significance,

is the true mean greater than 10? (b) Use Excel to find the right-tail *p*-value.

**9.56** A coin was flipped 60 times and came up heads 38 times. (a) At the .10 level of significance, is the

coin biased toward heads? Show your decision rule and calculations. (b) Calculate a *p*-value and

interpret it.

**9.62** The Web-based company *Oh Baby! Gifts* has a goal of processing 95 percent of its orders on the

same day they are received. If 485 out of the next 500 orders are processed on the same day, would

this prove that they are exceeding their goal, using *α* = .025? (See story.news.yahoo.com accessed

June 25, 2004.)

**9.64** An auditor reviewed 25 oral surgery insurance claims from a particular surgical office, determining

that the mean out-of-pocket patient billing above the reimbursed amount was $275.66 with a

standard deviation of $78.11. (a) At the 5 percent level of significance, does this sample prove a

violation of the guideline that the average patient should pay no more than $250 out-of-pocket?

State your hypotheses and decision rule. (b) Is this a close decision?