Ross, Chapter 5, Problems 11, 14, 17, 21, 31, 34 and Theoretical Exercises 8 and 9. In Th. Ex. 8, you may assume that X is a continuous RV. In Th. Ex. 9, note that it should say “Show that if Z ...”. These problems are the same in the 8th edition of the book, except for problem 17, which is reproduced below.

**Problem** (17). The salaries of physicians in certain specialty areas approximately normally distributed. If 25 percent of these physicians earn less than $180,000 and 25 percent earn more than $320,000, approximately what fraction earn

(a) less than $200,000;
(b) between $280,000 and $320,000?

**References**