awfully good experience for the graduate student TA.

At some schools, the TA is more autonomous. It is possible that the TA will be a free-standing teacher, creating his own exams and constructing his own grading system. If this description applies to you, then this section of the book does not. But the rest of the book does, and you may benefit from reading it.

For more information about the day-to-day duties of being a Teaching Assistant, see Section 2.14.

2.20 Advising, Letters of Recommendation, and Graduate School

Of course a substantial amount of your undergraduate teaching duties will consist of classroom contact hours and office hours. But that is not the whole enchilada. If you are a senior member of the department, then you may be asked to help with undergraduate advising. Apart from your official duties as an advisor, students may ask you for advice about their curriculum or about graduate school. And you will be asked to write letters of recommendation. (As you read on, refer to Section 4.9 about Advice and Consent.)

You are well qualified—indeed nobody is better qualified—to give your undergraduate students advice on what courses to take, or on how to prepare for various mathematical careers, or on how to select a graduate program. If a student wants to be an actuary, then one course of action is appropriate. If instead the student wants to be a software engineer then different advice would be the order of the day. Even if the conversation wanders beyond your area of expertise, you can surely direct the student to another faculty member, or to a guidance counselor, who can help. Too many undergraduates get the bulk of their advice from fellow students. Sadly, that advice is often based largely on rumor, innuendo, and misinformation. You really perform a great service when you take the time to provide an undergraduate student with expert advice.

Of course the advice you give students may be no better than what they can glean from their peers if you do not take the trouble to find out what you are talking about. Before you tell students to take this class rather than that, or this flavor of the math major rather than that, or to take an incomplete rather than a drop, find out what the rules are. Become acquainted with the requirements for the math major and minor. What are the rules for drops? For incompletes? What are the mathematics requirements for the physics, engineering, chemistry, and other majors? You can do a lot of damage if you offer advice without knowing whereof you speak.

Most undergraduate students don't have a clue about graduate school. They don't know how one gets in, how one pays for it, how long it takes, what it entails, what a Ph.D. is, how a Ph.D. differs from a Masters degree, what is involved in writing a thesis, and so forth. In general, their parents and their friends will know even less than they do. So, again, you perform a great service if you are willing to share your expertise. Once a student knows that he wants to get an advanced degree, he will need some real help in choosing a school
and a program that suits his abilities, his interests, and his needs. You, the mathematics professor, are the best person to provide this information.

Part of this general circle of activities is that students will ask you for letters of recommendation. It is definitely part of your professional duties to field such requests. If a student is serious about getting into graduate school, or getting a job in a technical field, then he has few places to turn for recommendations beside his college instructors. You should make it clear to students that it is no burden for you to write a letter of recommendation, and you should agree to do so—UNLESS this is a student of whom you have a poor opinion, and for whom you would feel uncomfortable writing a letter. In that case you should say, "I'm sorry, but I do not feel that I could write a very supportive letter for you. Perhaps you should ask someone else." To agree to write a letter, knowing full well that you will never do so, is dishonest and unfair to the student. Please do not fall into this trap.

The companion volume [KRA] provides a lengthy disquisition on the chapter and verse of good letter writing. I shall not repeat the details here. But do endeavor to be supportive of your students—at least the good ones—and do endeavor to be honest. Your reputation as a letter writer is part of your professional gestalt. It will follow you around for the rest of your life.