Homework Guide

Exercises in the chapter versus exercises at the end of the chapter

The exercises within the chapter are usually somewhat easier because they illustrate the ideas that have just been discussed. When you are going through the chapter, these are useful to check your understanding as you go along. The exercises at the end of the chapter give you some practice in determining what techniques are needed from the statement of the problem, which is more relevant to what you’ll see on a test.

Technology:

Exercises with a (T) require some form of technology (statistical calculator, applet, Crunch It software, or MINITAB) to do some part of the problem. Problems with (M) have some part for which you are required to use MINITAB, specifically. You may use MINITAB on additional exercises if you wish. Most, but not all, of those exercises are also given in the MINITAB Manual, with more explicit directions about how to use MINITAB to do them. Please look there before you start using MINITAB for a problem. Most, but not all, of the exercises which require MINITAB have data files available so that you don’t have to type in the data. When you start using MINITAB, you should definitely learn to find those datafiles so that you don’t waste time typing in a lot of data. However, sometimes you will need to use MINITAB for an exercise for which there is not a data file. For those exercises, either the dataset is so small it is easy to type in, or no dataset is needed. See the examples of similar exercises in the MINITAB Manual.

On the problems requiring technology, as on all homework, you should spend as much time and thought answering questions about what the results mean as you spend calculating. Your answers should reflect this. During the Testing Center portion of the tests, you will not have computer access and will not be allowed to use a graphing calculator. You will not be asked to compute standard deviations or correlation coefficients on tests.

The electronic textbook in StatsPortal has links to the datasets for many of the exercises that use technology. You should be able to find the datasets without that, but you may find it convenient to use these links most of the time.

Check Your Skills questions:

These short multiple-choice questions at the end of each chapter before the exercises are provided so that you can quickly determine whether you have seen the basic ideas in the chapter. While they are not assigned as part of the homework, you may wish to use these to give yourself a quick overview of the material. If you miss any, review that section of the chapter before starting the exercises.

Specific Instructions:

1. Do most of the homework problems by handwriting and get a looseleaf notebook to keep it organized. Don’t use a spiral notebook, because you will need to insert computer output and additional pages from time to time.

2. Print the homework problem list and, underneath each problem (except the multiple choice problems, make notation about your experience doing it. Use these to keep up with what questions you need to ask and which problems were hard for you. Review the hard ones again before the test. Use the following code.

   • 1: I didn’t read it.
   • 2: I read it, but didn’t work on it.
   • 3: I read it, worked on it some (thinking or writing), but wasn’t able to complete it and decided not to pursue it.
   • 4: I read it, worked on it (thinking or writing), got some help from examples, the solution, and/or the Discussion Board, and wasn’t able to do most of it correctly, even with help.
   • 5. I read it, worked on it, and read the solution and was able to do most of it correctly after help from examples, the solution, and/or the Discussion Board.
• 6. I worked it and, with the help of examples, the solution, and/or the Discussion Board, was able to work it correctly.

• 7. I worked it without help, and when I read the solution, found that I had worked it correctly.

3. If you look back at an example to see how to do a problem, be sure you understand the reasons for each step. If you don't, write a question and leave space to write the answer when you find it.

4. If you cannot work a problem, write a question in a complete sentence about what you don't understand. Make it as specific as possible so that when you learn the answer to that question, you will be able to make progress on the problem. Leave room to write the answer to that question when you find it. Then ask your question on the Discussion Board and, a couple of days later, write down what you learned. Get all questions answered BEFORE you take the test, which means before you turn it in.

5. Show enough work (and draw enough pictures) that two weeks later you can remember what you did to solve the problem. On the test you will not have several problems of one type all together. You will have to rely on the instructions and the statement of the problem for guidance in how to proceed. Make your homework solutions useful for reviewing before the test.

6. Practice reading the problem carefully on every homework problem!

7. Many students waste time while doing the homework by not asking questions soon enough. When something confuses you, ask yourself if you have seen any explanation relevant to this and review it once. After you have done that, and then if you have spent 10 minutes trying to understand some specific point without success, you should spend several minutes writing as specific a question as you can about what you don’t understand. Submit that to the Discussion Board. Then leave that particular subtopic until you have an opportunity to get your question answered. Often you can simply go to the next homework question. There is always something else productive to spend your time on until you get an answer. Learning to formulate good questions and get them answered

8. Don’t copy solutions directly from the answer key in the e-book, from the back of the book, or from any other source. Write solutions and answers yourself and then use those to check your work.

Homework Reports:

For each chapter, prepare a summary of your ratings. It is important to be honest on these. Even if these show a pattern of work which doesn’t seem good to me, you will still earn full credit for submitting a report if you submit it. The details of the report will affect how I advise you if you need help.

Homework Grades:

If I did grade homework, I would count a problem as done if you could (honestly) rate it as 5, 6, or 7 on the cover reporting sheet and assign grades like this. I don’t grade homework in this course, but I think it is useful for you to be able to grade yourself on your homework effort. Here’s how you should do that.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>All problems. (Most students don’t need this much practice. Only do as much homework as you need to understand the material.)</td>
</tr>
<tr>
<td>90</td>
<td>About 70% of the assigned exercises within the chapter and all of the assigned exercises at the end of the chapter, definitely including all the MINITAB problems.</td>
</tr>
<tr>
<td>80</td>
<td>About 70% of the exercises within the chapter and about 80% of the exercises at the end of the chapter, definitely including all the MINITAB problems.</td>
</tr>
<tr>
<td>65</td>
<td>About 60% of both types of problems, definitely including all the MINITAB problems. Or about 80% of the exercises within the chapter and about 30% of the exercises at the end of the chapter, including all the MINITAB problems in each chapter, if any were assigned. No entire chapters omitted.</td>
</tr>
<tr>
<td>50</td>
<td>About 50% of the problems.</td>
</tr>
</tbody>
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