

MATH 1342. BPS 6th edition. Homework, Chapters 11 and 14-25

You are expected to do the problems in bold type. The non-bold-type problem numbers are for students who need more straightforward problems before they attempt the problems in bold type.

Chapter 11: [11.1, 11.3, 11.5, 11.7, 11.9, 11.11, 11.13, 11.14-11.21(odd-numbered problems)] **11.23, 11.25, 11.27, 11.29, 11.31, 11.33, 11.35, 11.37**

Chapter 14: [14.1, 14.7, 14.9, 14.11-14.18(odd-numbered problems)] **14.19, 14.21, 14.23, 14.25**

Chapter 15: [15.1, 15.5, 15.9, 15.11, 15.15, 15.19-15.27(odd-numbered problems)] **15.29, 15.31, 15.33, 15.39, 15.41, 15.43 (after reading 15.42)**

Chapter 16: [16.1, 16.3, 16.5, 16.7, 16.9, 16.10, 16.11, 16.13, 16.19-16.25(odd-numbered problems)] **16.8, 16.9(A), 16.29, 16.31, 16.33, 16.35, 16.37a, 16.39, 16.41, 16.43**
16.8 is a very important exercise. See the statement in italics at the end.

Chapter 17: [17.1 – 17.35 and 17.43-17.55 (odd-numbered problems), 17.59, 17.61], **17.67, 17.73, 17.75, 17.77**

XX

Chapters 18 – 25

Making the plan, checking conditions, writing conclusions, and answering various questions about the data are very important in this chapter and in the rest of the chapters in the course. Computing by hand is not as important in the remaining chapters of the course as it was in the earlier part of the course. In much of your homework for the remaining chapters, your computations will be on software, so, of course, you only need to report the results and not show your work.

However, your homework in **each** of Chapters 18-21 should include at least two problems for a confidence interval and two problems for a hypothesis test where you write the formula and show what numbers are to be plugged in where and then compute the answer with a calculator.

Test 4: Computing by hand will only be between 20% and 40% of the credit on Test 4. Many of the non-computing-by-hand problems on the test will require you to show the formula and what numbers must be plugged in where.

Test 5: Computing by hand will be less than 10% of the credit on Test 5. On Test 5, you will demonstrate that you can use Minitab to do the computations on the material from Chs. 18-25.

Remember to use software quite a lot as you do homework from now on. When you are tested on software, you must use Minitab.

Chapter 18: [18.1, 18.3, 18.5, 18.7, 18.9ab, 18.11, 18.13, 18.15-18.24(odd-numbered problems)]] **18.27, 18.29, 18.31, 18.35, 18.39, 18.45, 18.49**

Chapter 19:

Remember that, for most of the problems in this chapter, you will need to use the “Grouped” option in the software. Also remember that neither CrunchIt nor Minitab will make stemplots for data in the usual format for grouped data. So you should replace the requested stemplots with whatever the software will easily do (Minitab or by hand – I recommend dotplots. CrunchIt – I recommend boxplots.)

For exercises below which have full data instead of summaries, you should find the means and standard deviations with software before starting to do the computations by hand, if this is a problem for which you are choosing to practice doing the computations by hand.

Chapter 19: [19.1, 19.3, 19.5, 19.7, 19.9, 19.11, 19.13, 19.15, 19.16-19.24(odd-numbered problems)] **19.25, 19.29, 19.31** (Be sure to find s for each group before putting the data into the software or the formula.) **19.33, 19.39, 19.41, 19.43, 19.45, 19.49, 19.51**

Chapter 20: [20.1, 20.3, 20.5, 20.7, 20.9, 20.11, 20.13, 20.15-20.24(odd-numbered problems)]] **20.25, 20.27, 20.29, 20.31, 20.33, 20.37, 20.41**

Chapter 21: [21.1, 21.3, 21.5, 21.7, 21.9-21.16(odd-numbered problems)]] **21.17, 21.19, 21.21, 21.25, 21.35**

Chapter 22: You are not expected to turn in exercises from this chapter as part of your homework. But do use these problems to practice for the test.

Use these exercises to practice determining what type of analysis is needed to answer the question. It is unlikely that you need to / will have time to practice much computation in this chapter. **Read the instructions for exercises 22.41 through 22.46. Do the odd-numbered problems in those. Then continue to use those same instructions to say what type of analysis is needed for at least five odd-numbered problems between 22.47 and 22.64.** Check their answer to see that they did use that same procedure you identified.

Chapter 23: Do most calculations with Minitab. No data files are needed. Do not use the data files when they are provided. That is confusing.

In Minitab, type in the summary table WITHOUT the columns for the totals and then use Stat > Tables > Chi-Squared Test (Table in Worksheet). You must use Minitab for these calculations on the final exam, not Crunch-It.

See the Summary section at the end of Chapter 23 for information about what you should be able to do by hand.

You can use Crunch-It to do the calculations, and it is explained in the Crunch-It Manual, which is available in StatsPortal under Resources. Most students find that harder to understand than using Minitab.

[23.1, 23.3, 23.5, 23.7, 23.9, 23.18-23.27 (odd-numbered problems)] **23.29, 23.33, 23.36, 23.37, 23.38, 23.39, 23.41, 23.43, 23.47**

(All four of 23.36-23.39 are assigned because it is important to pay careful attention to whether the study meets the conditions to use a chi-squared test.)

Chapter 24: There are very few calculations to be done by hand in this chapter. Do calculations with either Minitab or CrunchIt. Many of the exercises in the book include output. You must use Minitab for these calculations on the final exam, not CrunchIt.

Many of the questions involving residual plots suggest the scale for the vertical axis so that you can see the pattern, or lack of a pattern, more clearly. You do not have to produce graphs with that suggested scale, since our software doesn't make that easy. (As in 24.29 and most other problems involving residual plots.)

You will NOT be asked to compute s or any SE by hand, nor will you be asked to compute the regression coefficients by hand, although you did do that in Chapter 5. You are expected to recall all the material you learned in Chapter 5 and use it here as well.

Chapter 24: [24.1ab, 24.3, 24.5, 24.7, 24.9, 24.11, 24.13, 24.15, 24.16-24.24 (odd-numbered problems)] **24.25, 24.27, 24.29, 24.31, 24.33, 24.39, 24.45**

Chapter 25

Do not do any calculations by hand in this chapter. When you are asked to do graphs or calculations, use software.

[25.1, 25.3, 25.5, 25.7, 25.9, 25.11, 25.13, 25.15–25.23 (odd-numbered problems)] **24.25, 25.27, 25.31, 25.33, 25.35, 25.37**