

Chapter 7: Examples

The following problems have been selected to develop your skills in obtaining z-scores and associated probabilities from the original measurement scale and in converting z-scores to the original measurement scale. These problems are not part of your assigned homework.

1. *Study Guide*: problems 7.1, 7.2, 7.6, and 7.7, page 88.
2. *Study Guide*: problems 7.3-7.5, page 88.
3. *Study Guide*: problems 7.23 and 7.24, page 90.
4. *Study Guide*: problems 7.25, page 90.
5. Problems 7.7-7.9, page 285.
6. Problems 7.32-7.33, page 287.
7. Problems 7.26-7.28, pages 286-287.
8. *Study Guide*: problems 7.13 and 7.14, page 90.
9. *Study Guide*: problems 7.15 and 7.16, page 90.

Chapter 7: Homework Problems

Answer the following questions on sheets of paper that can be handed in for credit. Be sure your answers are legible and clearly labeled.

1. Problems 7.1 and 7.2, page 285.
2. Problem 7.4, page 285.
3. Problems 7.42-7.46, page 288.

Additional questions applicable to all problems listed above:

What are the null and alternative hypotheses in these situations? Write these out in words and depict these as mathematical equations.

What are the critical values? Draw the distribution and label the critical values on the statistical distribution scale and on the measurement scale with arrows. Indicate where the sample estimate of the parameter lies relative to the critical values on the measurement scale. What inference can be made based on the relationship between the sample estimate and the critical values on a measurement scale?

Test the hypothesis. Obtain the test statistic. How does the test statistic relate to the critical values obtained from the statistical distribution scale? What inference can be made based on the relationship between the test statistic and the critical values from the statistical distribution?

Compute the p-value for the hypothesis test. What inference can be made based on the p-value?

Compute the 95% confidence interval for the parameter in question. What inference can be made based on this confidence interval?

How do your answers pertaining to statistical inferences relate to each other?