

MTH 105 Exam 2 Review

Exam 2 is an in class exam given Wednesday 11/13. Exam 2 will cover Sections 9.1 – 9.4 of your book.

Study ideas: Review homework, quiz problems, in class worksheets, and work through the suggested Mindscapes at the end of this sheet. Do not just read over completed work - redo the problems without looking at the answer and time yourself. The test is taken in a timed environment so not only should you know how to do these problems, you should be able to do them quickly. If you have completed your online homework, you may view the solutions by going to the problem and clicking “show solution”. If you have not completed your homework you should do so. Additional problems may be found in the Mindscapes at the end of each section and suggested problems are given at the end of this sheet. Many of the problems have hints or even a solution in the back of the book so you can check your work.

You will be allowed a calculator (no cell phones) and one 3×5 notecard with notes on both sides for the exam.

The following topics will be emphasized:

- How to make and read graphs: bar charts, histograms, stem and leaf, box and whisker
- How to compute mean, median, mode and the 5-number summary of a data set
- An understanding of bias in a data collection and misrepresentations in graphs
- How the mean and median are affected by outliers
- How to estimate the mean and median from a histogram
- An understanding of the shape of graphs (uniform, normal, skewed right, skewed left)
- An understanding of the idea of standard deviation as a measure of how far a typical data point is from the mean (you will not need to know the formula)
- An understanding of the normal distribution (including the percentage of data that lies between various standard deviations from the mean)
- An understanding of confidence intervals, confidence levels, and margins of error

Suggested Mindscapes (these include past homework assignments):

- Section 9.1 Mindscapes 13, 20, 23
- Section 9.2 Mindscapes 1 – 10, 13, 15, 23, 25, 26
- Section 9.3 Mindscapes 1 – 5, 7, 9 – 16
- Section 9.4 Mindscapes 1 – 3, 8, 9, 13, 1, 21 – 24