MA 135 Quantitative Literacy: Math in the Real World

University of Saint Mary — Fall 2024

Each item below refers to a section of the course textbook *Using & Understanding Mathematics: a Quantitative Reasoning Approach* (Eighth Edition) by Jeffrey Bennett and William Briggs.

Exam 1: Problem-Solving and Using Numbers in the Real World

- §2A: Understand, Solve, and Explain
- §2B: Extending Unit Analysis
- §2C: Problem-Solving Hints
- §3A: Uses and Abuses of Percentages
- §3B: Putting Numbers in Perspective
- §3C: Dealing with Uncertainty
- §3D: Index Numbers, the CPI, and Beyond
- §3E: Numerical Surprises

Exam 2: Essentials of Personal Finance

- §4A: Taking Control of Your Finances
- §4B: the Power of Compounding
- §4C: Savings Plans and Investments
- §4D: Loan Payments, Credit Cards, and Mortgages
- §4E: Personal Income Taxes

Exam 3: Basic Principles of Probability and Statistics

- §5A: Fundamentals of Statistics
- §5B: Should You Believe a Statistical Study?
- §5C: Statistical Tables and Graphs
- §5D: Graphics in the Media
- §5E: Correlation and Causality

- §6A: Characterizing Data
- §6B: Measures of Variation
- §6C: the Normal Distribution
- §6D: Statistical Inference
- §7A: Fundamentals of Probability
- §7B: Combining Probabilities

Exam 4: Using Mathematical Modeling in the Real World

- §8A: Linear vs. Exponential Growth
- §8B: Doubling Time and Half-Life
- §8C: Real Population Growth
- §8D: Logarithmic Scales
- §9A: Functions
- §9B: Linear Modeling
- §9C: Exponential Modeling