Math 120
Theme 3 Schedule and Objectives

Theme 3: Mathematical Modeling
Project 3: Analyzing Survey Results – How are Classes Doing?

Recall: View the videos and read the applicable sections BEFORE the first class of the week, and complete both the RC (Reading Checks) and HW (HomeWork) before your assigned due dates.

Week 11
Unit 6A Objectives: Calculate and interpret measures of central tendency; describe the shape of a distribution with modes, symmetry, skewness and variation Reading: Unit 6A RC 6A: 2 random from Quick Quiz 1-10 HW 6A: (Exercises) 9, 11, 14, 15, 18, 19, 20, 27, 30, 34, 35, 36 HW Topics: Decide if a statement involving data makes sense (2); Find the mean, median & mode of a list of numbers (3); Determine the effect of outliers on the mean & median (2); Describe & analyze distributions (5) Unit 6B Objectives: Find and interpret quartiles; calculate and interpret standard deviation Reading: Unit 6B RC 6B: 2 random from Quick Quiz 1-10 HW 6B: (Exercises) 2, 3, 6, 15, 16, 17, 22, 23, 25 HW Topics: Answer review questions involving measures of variation (3); Create boxplots (3); Solve application problems involving measures of variation (3) Unit 6C Objectives: Identify a normal distribution and apply the 68-95-99.7 rule Reading: Unit 6C RC 6C: 2 random from Quick Quiz 1-10 HW 6C: (Exercises) 2, 3, 4, 7, 19, 20, 21, 26, 27, 28, 34, 35, 37 HW Topics: Answer review questions involving the normal distribution (3); Decide if a statement involving the normal distribution makes sense (1); Solve application problems involving normal distributions (9) Mini Project 6: Candy Calculations

Week 12

Unit 8A Objectives: Identify linear versus exponential growth
  Reading: Unit 8A
  RC 8A: 2 random from Quick Quiz 1-10
  HW 8A: 1, 5, 9, 11, 14, 15
  HW Topics: Answer review questions about exponential growth (1); Decide if a statement
        involving linear & exponential growth makes sense (1); Distinguish between linear &
        exponential growth or decay (4)

Unit 8B Objectives: Identify half life and doubling models; relate half life and doubling times to exponential growth
  Reading: Unit 8B
  RC 8B: 2 random from Quick Quiz 1-10
  HW 8B: (Exercises) 29, 31, 33, 45, 47, 48
  HW Topics: Use exact & approximate doubling time formulas (3); Use exact & approximate
        half-life formulas (3)

Mini Project 8: Exponential and Linear Models of Pay

Week 13

Unit 9B Objectives: Identify linear models; identify rates of change and the linear equation; graph linear functions
  Reading: Unit 9B
  RC 9B: 2 random from Quick Quiz 1-10
  HW 9B: (Exercises) 1, 3, 5, 11, 13, 23, 29, 37, 39, 43, 45
  HW Topics: Answer review questions involving linear models (3); Analyze graphs of linear
        functions (2); Create & use linear functions to model situations (2); Graph linear
        equations (2); Analyze graphs of linear functions (2)

Unit 9C Objectives: Identify and find exponential models
  Reading: Unit 9C
  RC 9C: 2 random from Quick Quiz 1-10
  HW 9C: (Exercises) 29, 31
  HW Topics: Create & use an exponential function to model a situation (2)

Mini Project 9: Modeling Population of the World

Week 14

Test Review and Presentation of Projects
Theme 3 Test