INTERMEDIATE ALGEBRA FOR LIBERAL ARTS

By Solano Faculty
With material from
Los Medanos Community College and
Pasadena City College

Textbook for Math 112

CHA	PTER 1: INTRO TO STATISTICAL GRAPHS	
1.1	Types of data	Page 1
1.2	Graphs for Qualitative Data and Percent Review	
	1.2.1 Frequency Distributions	Page 8
	1.2.2 Bar Graphs	Page 12
	EXCEL for Bar Graphs	Page 13
	1.2.3 Percent Review	Page 18
	1.2.4 Pie Charts	Page 31
	EXCEL for Pie Charts	Page 32
1.3	Percent Applications	Page 37
1.4	Graphs of Quantitative Data	
	1.4.1 Dot plots	Page 44
	1.4.2 Shape of Distributions	Page 48
	1.4.3 Making Histograms	Page 59
	Histograms on the TI 83/84 CALC	Page 60
	1.4.4 More on Histograms	Page 70
1.5	Measures of Center	
	1.5.1 Measures of center	Page 76
	1.5.2 Mean as a balancing point	Page 93
	1.5.3 Shape and Measures of center	Page 103
1.6	Variability	Page 109
Chap	oter 2: Two variable Quantitative Data and Line	ear Correlation
2.1 T	wo Variable Quantitative Graphs	
	2.1.1 The Coordinate Plane	Page 118
	2.1.2 Scatter Plots	Page 119
	2.1.3 Scatterplot versus Dot plot	Page 120
2.2 Functions (Part 1)		Page 122
2.3 Functions (Part 2)		Page 131
2.4 Arithmetic Sequences		Page 141
2.5 Li	Page 148	
2.6 In	troduction to Scatterplots and Association	Page 155
	near Models	Page 163
2.8 D	irection, form and strength in scatter plots	Page 171
2.9 I i	near models using Point-Slope	Page 178

2.10 Linear regression (and the Good Fit Line)	Page 188
2.11 Linear Regression and the Best Fit line	Page 198
2.12 Using the best fit line to make predictions	Page 202
Chapter 2: Evpenential Models	
Chapter 3: Exponential Models	D 200
3.1 Geometric Sequences	Page 209
3.2 Review of Scientific Notation and Exponent Rules	Page 220
3.3 Exponential Models	Page 228
3.4 Exponential Models (doubling and half time)	Page 238
3.5 Exponential Models (Good Fit)	Page 244
3.6 Compound Interest	Page 251
3.7 Annuities and Mortgages	Page 259
3.8 Exponential Regression and the TI calculator	Page 269
Chapter 4: Logs	
4.1 Exponentials and Logs	Page 272
4.2 Common Logs	Page 278
4.3 Power Property for Logs	Page 285
Chapter 5: Intro to probability	
5.1 Overview of Probability	Page 293
5.2 Working with sets	Page 296
5.3 Working with sets and tables	Page 304
5.4 Working with Venn Diagrams and tables	Page 311
5.5 The mathematics of uncertainty	Page 315
5.6 Trees and Probability	Page 323
5.7 Tables and Probability	Page 325