**Second 6 Weeks** | **Intermediate Algebra 1** | **2005 - 2006**

**Scope & Sequence**

TEKS A1D, E, A2D, A3A, A5C, A7A, B, C should be integrated into daily instruction

| Days | TAKS Objective | TEKS: Student Expectation | Instructional Considerations | Prentice Hall | Supplemental Activities | Performance Benchmark Assessments | A&M Curriculum |
|---|---|---|---|---|---|---|---|
| 4 | 1,2 | **A1A** describe independent and dependent quantities in functional relationships<br>**A1B** gather and record data and use data sets to determine functional relationships between quantities;<br>**A1E** interpret and make decisions, predictions, and critical judgments from functional relationships<br>**A2B** identify mathematical domains and ranges and determine reasonable domain and range values for given situations, both continuous and discrete;<br>**A2C** interpret situations in terms of given graphs or creates situations that fit given graphs;s<br>**A2D** collect and organize data, make and interpret scatterplots (including recognizing positive, negative, or no correlation for data approximating linear situations), and model, predict, and make decisions and critical judgments in problem situations.<br>**A3A** use symbols to represent unknowns and variables<br>**A3B** look for patterns and represent generalizations algebraically<br>**A5A** determine whether or not given situations can be represented by linear functions<br>**A5C** translates among and uses algebraic, tabular, graphical, or verbal descriptions of linear functions<br>**A7A** analyze situations involving linear functions and formulate linear equations or inequalities to solve problems | • Create scatterplots<br>• Students must actively collect data, as well as use data sets<br>• Scatterplots should be linear, and non-linear<br>• Determine mean, median, mode, range from application problems<br>• Students should be able to find multiple measures of central tendency from the same set of data. | *Ch 2-1, 1-1* | • Height vs Arm Span<br>• Height vs Birth Date<br>• Lickety-Split Jalopies<br>• M&M Activity<br>• 9th TAKS Prep Data Representation p. 358-360 | Vacation Mileage | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | 1,2 | **A1A** describe independent and dependent quantities in functional relationships<br><br>**A1B** gather and record data and use data sets to determine functional relationships between quantities;<br><br>**A1E** interpret and make decisions, predictions, and critical judgments from functional relationships.<br>**A2B** identify mathematical domains and ranges and determine reasonable domain and range values for given situations, both continuous and discrete;<br>**A2C** interpret situations in terms of given graphs or creates situations that fit given graphs;s<br>**A2D** collect and organize data, make and interpret scatterplots (including recognizing positive, negative, or no correlation for data approximating linear situations), and model, predict, and make decisions and critical judgments in problem situations.<br>**A3A** use symbols to represent unknowns and variables | • Relate graphs to events<br>• Create graphs that fit situations<br>• Students must be able to justify / explain graphs in relation to situation<br>• Incorporate dependent, independent, domain, and range as working vocabulary | *Ch 2-2* | • * **Bathing the Dog**<br>• 600-Meter Race<br>• Create a Situation;<br>• CBR Activities;<br>• Incessantly Independent and Decisively Dependent<br>• Moving On Down the Line<br>• 9th TAKS Prep Input/Output Lesson p.30-33<br>• Klein Unit 2 Soda Pop Activity<br>• Klein Unit 2 Identify Quad. Graphs<br>• Klein Unit 2 Match the Graphs | | F Unit 5 |
| 14 | 1,2,3 | **A3B** given situations, looks for patterns and represents generalizations algebraically<br>**A5A** determine whether or not given situations can be represented by linear functions<br>**A5C** translates among and uses algebraic, tabular, graphical, or verbal descriptions of linear functions<br>**A7A** analyze situations involving linear functions and formulate linear equations or inequalities to solve problems | • Patterns: Students must use manipulatives to build patterns, use tables and determine the pattern rule<br>• Writing Function Rules | Ch 2-3 to Ch 2-6 | • ***Identifying Patterns**<br>• *** Finite Differences**<br>• ***Mosaics**<br>• Stacking Cups<br>• 9th TAKS Prep Patterns and Functional Relationships p.45-50<br>• Klein Unit 3 Finding Function Rule | Freight Train | F 6-1<br>F6-2<br>F6-3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7 | 1,2, 3,4 | **A1B** gathers and records data, or uses data sets, to determine functional (systematic) relationships between quantities<br><br>**A1E** interpret and make decisions, predictions, and critical judgments from functional relationships.<br>**A3A** use symbols to represent unknowns and variables<br>**A3B** given situations, looks for patterns and represents generalizations algebraically<br>**A5A** determine whether or not given situations can be represented by linear functions<br>**A5C** translates among and uses algebraic, tabular, graphical, or verbal descriptions of linear functions<br>r verbal descriptions of linear functions<br><br>**A6B** interpret the meaning of slope and intercepts in situations using data, symbolic representations, or graphs;<br><br>**A6C** investigate, describe, and predict the effects of changes in *m* and *b* on the graph of $y = mx + b$;<br><br>**A6E** determine the intercepts of the graphs of linear functions and zeros of linear functions from graphs, tables, and algebraic representations;<br>**A6F** interpret and predict the effects of changing slope and *y*-intercept in applied situations;<br>**A7A** analyze situations involving linear functions and formulate linear equations or inequalities to solve problems; | • Discuss linear parent function<br>• Explore the rate of change<br>• Use the slope formula (alone and in applications)<br>• Students must be able to explain what the slope means for given situations, and to determine slopes from tables, graphs, and algebraic representations | Ch 5-1, 5-2 | • **Exploring the concept of slope on a graphing calculator**<br>• Revisit Lickety-Split Jalopies<br>• 9th TAKS Prep Slope Lesson p. 132 | | F6-4<br>F6-5 |
| | | | • 4 Views of a Function ( table, graph, words, symbols)<br>• Students must be able to move among all 4 representations within the same problem. | Ch 2-6 | • Finding Pairs<br>• **Hot Air Balloon**<br>• **T-shirts**<br>• **Making Pizzas, Making Money**<br>• **CD's for the Band**<br>• 9th TAKS Prep Representation of Linear Functions p. 135-137, 140-150<br>• Klein Unit 1 Four Corners<br>• Klein Unit 7 The Wedge | • Drill team<br>• Zoomatic Wireless<br>• Theme Park<br>• Marbles in the Cylinder<br>• Vacationing in Colorado | |
| 2 | | Review<br>**CBA** | | | | | |