

**IRVING INDEPENDENT SCHOOL DISTRICT**  
**Instructional Guide (Scope & Sequence)**  
**Algebra I GT**

**DISPLAYING DATA**

LEARNING OBJECTIVE	TEKS #	TEXTBOOK Section	Suggested Resources & Tools
1. Translate verbal expressions into mathematical expressions.	b1C, b3A b3B	1-1	“Translating Expressions” Activity in C.Guide 0
2. Solve problems by looking for patterns.	b3B,b1E	1-2	TT “Importance of Patterns” (Intro) “Identifying Patterns: (#1-4) in C. Guide 0
3. Use mathematical properties to evaluate expressions. a. Order of operations b. Distributive, Commutative, Associative c. Collect/combine like terms	b4B	1-3, 1-7, 1-8	“Order of Operations” Activity in C. Guide 0
4. Solve open sentences.	b3A, b4A	1-5	Use graphing calculator to check answers
5. Use and interpret tables, graphs, and functions.	b1A, b1B, b1D,b1E, b2B,b2C	1-9	TT – “Have You Lost Your Marbles?” “Likety-Split Jalopies” in C. Guide 0
6. Use number lines to display data.	b2C,b2D	2-1	
7. Add, subtract, multiply, divide, and evaluate using rational numbers.	8.2A,B,C b3A,b4B	2-3, 2-4, 2-5, 2-6, 2-7	Include matrices in assignments. Use graphing calculator.
8. Find square roots.	b3A,d2A	2-8, 13-1	Work with approximations
9. Graph inequalities on a number line.	b3A	2-8	
10. Find measures of central tendency.		3-7	
11. Find probability of simple and compound events.	8.11A,B b2D,c2G	4-7 7-5	Focus should be on probability Worksheet in C. Guide TAKS 8 <sup>th</sup> Objective #5

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Learning Objective Addressed	Assessment Title
1	Finding Pairs (p. 221)
2	Mosaics (p. 25)
3	Paper Boxes (p. 447)
5	Bathing the Dog (p. 181) Swimming Pools (p. 33)

**IRVING INDEPENDENT SCHOOL DISTRICT**  
**Instructional Guide (Scope & Sequence)**  
**Algebra I GT**

**LINEAR RELATIONSHIPS**

LEARNING OBJECTIVE	TEKS #	TEXTBOOK Section	Suggested Resources & Tools
1. Write equations and work with formulas.	8.4A b3A,b1C, b3b	2-9	Worksheet in C. Guide 0
2. Solve equations using one or more operations and problem solving using equations.	8.5A b1D,b3A b4A,b4B, b3B	3-1, 3-2, 3-3, 3-4, 3-5	“Equation Bingo” from Glencoe Activities Masters – Yr. 1 TT – “Solving Linear Equations” in C. Guide
3. Solve literal equations.	b1D,b3A c3A,c3B	3-6	
4. Study and apply the Pythagorean Theorem	8.12A d2A	13-1	
5. Solve proportions.	8.1B b3A,c2G, c3A	4-1, 4-2	Supplement with TAAS format – use Worksheet in C. Guide
6. Solve percent problems.	8.3B b3A,b2D, c2G	4-4, 4-5	
7. Solve problems involving direct variation.	b1A,b1B, b1D,b2B, b3A, b3B, c1B, c2G, d3B	4-8	See “Direct Variation” Packet in C. Guide followed by Direct Variation Worksheets Activity “Packaging Cups” in C. Guide 0
8. Solve inequalities and graph solutions on a number line.	b1D, b2C, b3A, c3A, c3B, c3C	7-1, 7-2, 7-3, 7-4	Supplement with extra practice. See Glencoe Practice for section 7-3 “Find Me If You Can” Activity in C. Guide “BEE-ting Inequalities” Cindy Boyd card game --- in C. Guide 0
9. Solve problems involving absolute value. (equations and inequalities)	b1D, b2C, b3A,	7-6	
10. Graph inequalities in the coordinate plane.	b2C, b3A, c3A, c3B, c3C	7-8A, 7-8	

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Learning Objective Addressed	Assessment Title
1	Greetings (p. 233) Recycling (p. 251)
7	Nested Rectangles (p. 201)
8	Shopping (p. 255) Taxi Ride (p. 263) First Aid Supplies (p. 225) CD's For The Band (p. 41)

**IRVING INDEPENDENT SCHOOL DISTRICT**  
**Instructional Guide (Scope & Sequence)**  
**Algebra I GT**

**FUNCTIONS & RELATIONS**

LEARNING OBJECTIVE	TEKS #	TEXTBOOK Section	Suggested Resources & Tools
1. Graph ordered pairs, relations, and equations.	b2C, c1C	5-1	Activity – “Geo Battleship” from Glencoe Activities Masters Yr. 1
2. Solve problems by making a table.	b1A, b1B, b1C, b1D, b1E, b2A, b2B, b2C, b3A, c1A, c1B, c1C, c3A, c3B, c3C	5-2, 5-3, 5-4	TT – “Variables and Functions” “Valentine’s Day Idea” “Fundraiser Idea” all in C. Guide  0
3. Identify domain and range of a relation.	b1A, b1B, b1D, b1E, b2B, b2C, b3A, c1B, c1C, c3A, c3B	5-2, 5-3	“Domain and Range” Activity in C. Guide “Car Rental Problem”, “Pamphlet Making Problem” and worksheets in C. Guide
4. Determine if a relation is a function.	b1A, b1B, b1D, b1E, b2B, b2C, b3A, b4A, b4B, c1A, c1B, c1C, c3A, c3B,	5-5	TT – “Perimeter of Squares”, “Areas of Squares”  0
5. Write an equation to represent a relation.	b1b, b1C, b1D, b1E, b2C, b3A, b3B, c1A, c1C, c3A, c3B	5-6	See Packet in C. Guide for TEKS c3A - -- Analyze situations involving linear functions ... “What’s My Rule” Activity in C. Guide “Interpreting Line Graphs” in C. Guide  0

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Learning Objective Addressed	Assessment Title
2	The Garden (p. 273)
4	Which is Linear? (p. 93)
5	Analysis of a Function (p. 209) The Pool Problem (p. 65) Finding Pairs (p. 221) Explorers Guide (p. 45)

**IRVING INDEPENDENT SCHOOL DISTRICT**  
**Instructional Guide (Scope & Sequence)**  
**Algebra I GT**

**LINEAR FUNCTIONS**

LEARNING OBJECTIVE	TEKS #	TEXTBOOK Section	Suggested Resources & Tools
1. Solve problems involving the slope of a line: a. Explore characteristics of slope b. Determine slope from given graph c. Determine slope given the coordinates of two points d. Determine slope of parallel and perpendicular lines	b2A, b2C, b3A, b4B, c1C, c2A, c2B	6-1, 6-2, 6-6	TT – “Exploring Slopes” in C. Guide p. 324 Geoboard Activity  0
2. Transform linear equations into slope-intercept form in order to identify slope and y-intercept.	c1C, c2a		Algebra w/ Pizzazz: C-38, C-46 in C. Guide “Equation Match” p. 24 Yr. 1 Glencoe Activities Masters TT – “The Y-Intercept” in C. Guide
3. Graph linear equations using: a. point / slope b. $y = mx + b$ c. parameter changes (include parallel lines here)	b1A, b1D, b1E, b2C, b3A, c2B, c2C, c2D, c2E, c2F, c2G, c3C	6-5A, 6-5	TT – “Graphing Linear Functions” in C. Guide “Graphing Linear Equations” Activity in C. Guide Algebra w/ Pizzazz: C-47, C-48 in C. Guide Performance Assessment and Alternative Assessment for “Graphing Linear Equations Using Slope-Intercept Form” in C. Guide
4. Write equation of a line given: a. slope and y-intercept b. graph c. point / slope d. two points e. parallel & perpendicular lines	b1A, b1C, b1E, b2D, b4A, c2A, c2C, c2E, c2G, c3B,	6-4, 6-6	TT – “Cross-Country Cycling” in C. Guide Algebra w/Pizzazz: C-44, C-49, C-50  Worksheets in C. Guide 0
5. Draw a scatterplot and identify the equation of the line of best fit and/or predict from the scatterplot.	b1A, b1D, b2C, b3A, c1A, c1C, c2B, c2D, c3A, c3B	6-3	Glencoe Study Guide 6-3, Practice 6-3  Released EOC questions  0

0 ALGEBRA I Assessments by The Charles A. Dana Center --University of Texas at Austin

Learning Objective Addressed	Assessment Title
1	Graph It (p. 297) Math-a-Thon (p.247) The Submarine (p. 277)
4	Grocery Carts (p. 239) Cost and Profit (p.105) Making Pizzas, Making Money (p. 61)
5	Stretched Spring (p. 81)

**IRVING INDEPENDENT SCHOOL DISTRICT**  
**Instructional Guide (Scope & Sequence)**  
**Algebra I GT**

**SYSTEMS OF LINEAR EQUATIONS  
& LINEAR INEQUALITIES**

LEARNING OBJECTIVE	TEKS #	TEXTBOOK Section	Suggested Resources & Tools
1. Graph systems of equations.	b2C, b3A, c4A, c4B, c4C	8-1	
2. Solve systems of equations using various methods.	b2C, b3A, c4A, c4B, c4C	8-2, 8-3, 8-4	“Bag Activity” Performance Assessment and Alternative Assessment for Solving Systems of Equations in C. Guide 0
3. Apply and evaluate systems of equations through problem solving.	b3A, c4A, c4B, c4C		See EOC Released Questions TT – “How Many Pigs???” in C. Guide TT “ You’ll Not Sink My Battleship!” in C. Guide 0
4. Graph systems of inequalities.		8-5	
5. Solve systems of inequalities.		8-5	
6. Apply and evaluate systems of inequalities through problem solving.		8-5	

0 ALGEBRA I Assessments by The Charles A. Dana Center --University of Texas at Austin

Learning Objective Addressed	Assessment Title
2	Bear’s Band Booster Club p. 99) T-Shirts (p. 87)
3	Hot-Air Balloons (p. 55)

**IRVING INDEPENDENT SCHOOL DISTRICT**  
*Instructional Guide (Scope & Sequence)*  
**Algebra I GT**

**POLYNOMIALS**

LEARNING OBJECTIVE	TEKS #	TEXTBOOK Section	Suggested Resources & Tools
1. Multiply and divide monomials using patterns to develop the laws of exponents.	b3A, b3B, d3A	9-1, 9-2	“Discovering the Rules of Exponents” Activity in C. Guide
2. Express numbers in scientific notation.	b3A, b4B, d3A	9-3	
3. Add, subtract, and multiply polynomials.	b3A, b4A, b4B	9-4, 9-5, 9-6, 9-7, 9-8	Packet of material in C. Guide
4. Factor polynomials.	b3A, b4A, b4B	10-2, 10-3, 10-4, 10-5	“Frigly Frog” Card Game EOC Released Questions
5. Solve problems by factoring.	b3A, d2A	10-6	EOC Released Questions 0

0 ALGEBRA I Assessments by The Charles A. Dana Center --University of Texas at Austin

Learning Objective Addressed	Assessment Title
5	Home Improvements (p. 145)

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**Algebra I GT**

**NON-LINEAR FUNCTIONS and  
EQUATIONS**

LEARNING OBJECTIVE	TEKS #	TEXTBOOK Section	Suggested Resources & Tools
1. Graph quadratic equations using investigative approach.	d1B, d1C, d2B	11-1A, 11-1	Use graphing calculator – explore max/min vertex, symmetry, roots, etc. “Rectangle Problem” in C. Guide
2. Investigate parameter changes on quadratic equations.	d1B, d1C	11-1B	
3. Solve quadratic equations by graphing.	b1C, b1D, b1E, b3A, d1A, d1D, d2A, d2B	11-2	“Solving Quadratic Equations Using Graphs” Graphing Calculator Activity found in C. Guide Worksheet for Solving Quadratic Equations in C. Guide Alternative Assessment for Solving Quadratic Equations using Graphing in C. Guide
4. Analyze, in problem situations, graphs of quadratic equations and draw conclusions	d1D	11-1	Cooperative Learning Activity (in textbook ancillary materials) Quadratic Situations Worksheet 0
5. Solve quadratic equations by the quadratic formula.	b1C, b1D, b1E, b3A, d1A, d2A, d2B	11-3	Alternative Assessment for Solving Quadratic Equations Using the Quadratic Formula in C. Guide 0
6. Solve quadratic equations by completing the square.	b1C, b1D, d2A, d2B	13-6	
7. Solve problems involving exponential functions and growth and decay.	d3C	11-4, 11-5	“Slick Sam’s Car Payment Plan” Worksheets using Exponential Functions in C. Guide 0
8. Analyze data and represent situations involving inverse variation.	d3B	4-8	0

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Learning Objective Addressed	Assessment Title
4	Fireworks Celebration (p. 133) Golfing (p. 141)
5	How much Paint (p. 149)
7	Bright Lights (p. 161)
8	Music and Mathematics (p. 169)