# Alg1 Texas TEKS/STAAR/EOC (First Semester)

Legend:

Example **3[R]-A.5(B)**

- 3, The reporting category
- [R], Either Readiness or Supporting
- A.5, The TEKS
- (B) Expectation

**[P]**, indicates a prerequisite skill

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**Unit 1: Basic operations**

Lesson 01: Order of operations (PEMDAS) **[P]**

Lesson 02: Negative numbers, opposites, absolute values **[P]**
Inequalities

Lesson 03: Review of sign rules for arithmetic operations **[P]**
Unit multipliers

Lesson 04: Evaluating algebraic expressions **[P]**
Combining like terms

Lesson 05: Evaluating expressions that distribute negative numbers **[P]**
Nested groups

Lesson 06: *Putting it all together with fractions **[P]**

Unit 1 review
Unit 1 test

**Unit 2: Solving linear equations**

Lesson 01: Solving one-step linear equations **2[S]-A.3(a); 2[R]-A.4(A)**

Lesson 02: Solving two-step linear equations **2[S]-A.3(a); 2[R]-A.4(A)**

Lesson 03: Solving linear equations by combining like terms **2[S]-A.3(a); 2[R]-A.4(A)**
Solving multiple-step linear equations

Lesson 04: Solving linear equations with variables on both sides **2[S]-A.3(a); 2[R]-A.4(A)**

Unit 2 review
Unit 2 test

**Unit 3: Inequality basics**
**Solving linear, single-variable inequalities**

Lesson 01: Inequality statements **1[R]-A.1(D); 2[S]-A.2(A);3[S]-A.5(A); 3[S]-A.5(B); 4[S]-A.7(A); 4[R]-A.7(B); 4[S]-A.7(C)**

Lesson 02: Solving linear inequalities **1[R]-A.1(D); 2[S]-A.2(A);3[S]-A.5(A); 3[S]-A.5(B); 4[S]-A.7(A); 4[R]-A.7(B); 4[S]-A.7(C)**

Cumulative review, unit 3
Unit 3 test

**Unit 4: Word problems (area, perimeter, percent)**
**Solving abstract equations**

Lesson 01: Converting word expressions into algebraic expressions
Solving simple word problems **1[S]-A.1(A); 1[S]-A.1(B); 1[S]-A.19C)**

Lesson 02: Solving perimeter and area word problems **1[S]-A.1(A); 1[S]-A.1(B); 1[S]-A.19C); [P]**

Lesson 03: Percent problems **1[S]-A.1(A); 1[S]-A.1(B); 1[S]-A.19C); [P]**

Lesson 04: More area, perimeter, and percent problems **1[S]-A.1(A); 1[S]-A.1(B); 1[S]-A.19C); [P]**

Lesson 05: Solving abstract equations **1[S]-A.1(A); 1[S]-A.1(B); 1[S]-A.19C); [P]**

Cumulative review
Unit 4 review
Unit 4 test

**Unit 5: Relations and functions**

Lesson 01: The coordinate axes, reflections, and translations **[P]**

Lesson 02: Relations: domain and range **1[S]-A.1(B); 2[R]-A.2(b); 3[S]-A.5(B); 5[S]-A.9(A)**

Lesson 03: Functions: function notation **1[S]-A.1(B); 2[R]-A.2(b); 3[S]-A.5(B); 5[S]-A.9(A)**

Lesson 04: More practice with functions **1[S]-A.1(B); 2[R]-A.2(b); 3[S]-A.5(B); 5[S]-A.9(A)**

Lesson 05: Function word problems
Constant rates of change **1[S]-A.1(B); 2[R]-A.2(b); 3[S]-A.5(B); 5[S]-A.9(A)**

Lesson 06: Graphical representations of functions
Independent and dependent variables **1[S]-A.1(B); 2[R]-A.2(b); 3[S]-A.5(B); 5[S]-A.9(A)**

Cumulative review
Unit 5 review
Unit 5 test

**Unit 6: Graphing linear functions**

Lesson 1: Linear function definition
Plotting points and verifying with a graphing calculator
**3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Lesson 2: Slope **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B); 3[S]-A.6(A); 3[R]-A.6(B)**

Lesson 3: Graphing a line given a point and a slope
Slope-intercept form of a linear function **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Lesson 4: Converting linear functions to y = mx + b form
Verifying solutions to linear equations **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Lesson 5: Finding function rules given points in a chart
Special cases of linear functions (vert., horiz., b =0) **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Lesson 6: Putting it all together: interpreting linear graphs **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Lesson 7: Comparing linear graphs using a graphing calculator
Evaluating linear functions with a calculator **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Cumulative review
Unit 6 review
Unit 6 test

**Unit 7: More on writing linear functions**

Lesson 1: Writing the equation of a line given the slope and one other piece of information **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Lesson 2: Writing the equation of a line given two points
Writing the equations of horizontal & vertical lines **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Lesson 3: Perpendicular and parallel lines **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Lesson 4: Linear function word problems
Calculator tables **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B)**

Cumulative review
Unit 7 review
Unit 7 test

**Unit 8: Lines of best-fit, correlation**
**Interpreting data**

Lesson 1: Manual scatter plots, correlation **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B); ; 2[R]-A.2(D)**

Lesson 2: Scatter plots and linear regression on a graphing calculator **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B); 2[R]-A.2(D)**

Lesson 3: Interpretation of linear data using a graphing calculator **3[R]-A.5(C); 3[R]-A.6(C); 3[S]-A.6(E); 3[R]-A.6(F); 1[S]-A.1(B); ; 2[R]-A.2(D)**

Cumulative review
Unit 8 review
Unit 8 test

**Unit 9: Systems of linear equations**

Lesson 1: The meaning of the solution to a system of linear equations **2[R]-A.29B); 2[S]-A.2(C); 4[S]-A.8(A); 4[R]-A.8(B); 4[S]-A.8(C)**

Lesson 2. Solving two linear equations by graphing **2[R]-A.29B); 2[S]-A.2(C); 4[S]-A.8(A); 4[R]-A.8(B); 4[S]-A.8(C)**

Lesson 3: Solving two linear equations by substitution **2[R]-A.29B); 2[S]-A.2(C); 4[S]-A.8(A); 4[R]-A.8(B); 4[S]-A.8(C)**

Lesson 4: Solving two linear equations by elimination **4[S]-A.8(A); 4[R]-A.8(B); 4[S]-A.8(C)**

Lesson 5: Graphing calculator solutions of linear systems **4[S]-A.8(A); 4[R]-A.8(B); 4[S]-A.8(C)**

Lesson 6: Solving for two variables in word problems **4[S]-A.8(A); 4[R]-A.8(B); 4[S]-A.8(C)**

Cumulative review
Unit 9 review
Unit 9 test

**Unit 10: Direct and indirect variation**

Lesson 1: Direct variation **3[S]-A.6(G)**

Lesson 2. Indirect variation **3[S]-A.6(G)**

Unit 10 test

**Semester summary**

Semester review

Semester test

**Enrichment Topics**

**Topic A:** Commutative, distributive, and associative properties **2[R]-A.4(B)**

**Topic B:** Inequality conjunctions and disjunctions **1[R]-A.1(D); 2[S]-A.2(A); 3[S]-A.5(A); 3[S]-A.5(B); 4[S]-A.7(A); 4[R]-A.7(B); 4[S]-A.7(C)**

**Topic C:** Two dimensional inequalities **1[R]-A.1(D); 2[S]-A.2(A); 3[S]-A.5(A); 3[S]-A.5(B); 4[S]-A.7(A); 4[R]-A.7(B); 4[S]-A.7(C)**

**Topic D:** Combining direct and indirect variations **3[S]-A.6(G)**

**Topic E:** Scientific notation **[P]**

**Topic F:** Greatest common factor (GCF) and least common multiple (LCM) **[P]**

**Topic G:** Derivation of the Quadratic Formula **5[S]-A9(B); 5[S]-A.9(C); 5[R]-A.10(A); 5[R]-A.10(B)**

**Topic H:** Completing the square **5[S]-A9(B); 5[S]-A.9(C); 5[R]-A.10(A)**

**Topic I:** Statistics **[P]**

**Topic J:** Conic section applications **5[R]-A.9(D), 5-A.11**

**Topic K:** Forms of quadratic functions **5[R]-A.10(A,B), TEKS 6(B)**

**Topic L:** Writing quadratic functions **5[R]-A.10(A,B), TEKS 6(B)**