

# Academic Vocabulary

MATH ALGEBRA I

STANDARDS (TEKS): academic vocabulary directly taken from the standard STAAR: academic vocabulary used on the assessment (source released tests)

**STANDARD A.2(A)** determine the domain and range of a linear function in mathematical problems; determine reasonable domain and range values for real-world situations, both continuous and discrete; and represent domain and range using inequalities

STANDARDS (TEKS)		STA	AR
Thinking	Content	Content	Common
Determine	Domain		
Represent	Range		
Use	Linear function		
	Real-world situations		
	Continuous		
	Discrete		
	Inequalities		
	Vocabulary term used on ST	AAR	

## **STANDARD A.2(C)** write linear equations in two variables given a table of values, a graph, and a verbal description

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Write	Linear equation		
	Variable		
	Table		
	Graph		
	Verbal description		
	Vocabulary term used on ST	AAR	

## **STANDARD A.2(I)** write systems of two linear equations given a table of values, a graph, and a verbal description

STAN	DARDS (TEKS)	STA	AR
Thinking	Content	Content	Common
Write	System of linear equations		
	Table		
	Graph		
	Verbal description		
	Vocabulary term used on STAAR		





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**STANDARD A.3(B)** calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Calculate	Rate of change		
	Linear function		
	Tabularly		
	Graphically		
	Algebraically		
	Mathematical problem		
	Real-world problem		
	Vocabulary term used on STAAR		

**STANDARD A.3(C)** graph linear functions on the coordinate plane and identify key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Graph	Linear functions		
Identify	x-intercept		
	y-intercept		
	Zeros		
	Slope		
	Mathematical problem		
	Real-world problem		
	Vocabulary term used on STAAR		

STANDARD A.3(D) graph the solution set of linear inequalities in two variables on the coordinate plane

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Graph	Solution set		
	Linear inequalities		
	Variable		
	Coordinate plane		
	Vocabulary term used on STAAR		





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**STANDARD A.5(A)** solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Solve	Variable		
	Distributive property		
	Linear equation		
	Vocabulary term used on STAAR		

## **STANDARD A.5(C)** solve systems of linear equations with two variables for mathematical and real-world problems

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Solve	System		
	Linear equation		
	Variable		
	Mathematical problem		
	Real-world problem		
	Vocabulary term used on ST	AAR	

**STANDARD A.6(A)** determine the domain and range of quadratic functions and represent the domain and range using inequalities

STAN	DARDS (TEKS)	STA	AR
Thinking	Content	Content	Common
Determine	Domain		
Represent	Range		
Use	Quadratic function		
	Inequality		
	Vocabulary term used on STAAR		



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**STANDARD A.7(A)** graph quadratic functions on the coordinate plane and use the graph to identify key attributes, if possible, including x-intercept, y-intercept, zeros, maximum value, minimum values, vertex, and the equation of the axis of symmetry

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Graph	Quadratic function		
Use	Coordinate plane		
Identify	Attribute		
	x-intercept		
	y-intercept		
	Zeros		
	Maximum value		
	Minimum value		
	Vertex		
	Axis of symmetry		
	Vocabulary term used on ST	AAR	•

**STANDARD A.7(C)** determine the effects on the graph of the parent function  $f(x) = x^2$  when f(x) is replaced by af(x), f(x) + d, f(x - c), f(bx) for specific values of a, b, c, and d

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Determine	Effects		
	Parent function		
	$f(x) = x^2$		
	af(x)		
	f(x) + d		
	f(x-c)		
	f(bx)		
	Vocabulary term used on STAAR		





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STANDARD A.8(A) solve quadratic equations having real solutions by factoring, taking square roots,

completing the square, and applying the quadratic formula

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Solve	Quadratic equations		
	Factor		
	Take square roots		
	Complete the square		
	Quadratic formula		
	Vocabulary term used on STAAR		

# **STANDARD A.9(C)** write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Write	Exponential function		
Describe	$f(x) = ab^x$		
	Mathematic situation		
	Real-world situation		
	Growth		
	Decay		
	Vocabulary term used on STAAR		

**STANDARD A.9(D)** graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Graph	Exponential functions		
Identify	Growth		
	Decay		
	y-intercept		
	Asymptote		
	Mathematical problem		
	Real-world problem		
	Vocabulary term used on STAAR		





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**STANDARD A.10(E)** factor, if possible, trinomials with real factors in the form  $ax^2 + bx + c$ , including perfect square trinomials of degree two

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Factor	Trinomial		
	Factor		
	$Ax^2 + bx + c$		
	Perfect square trinomial		
	Degree		
	Vocabulary term used on STAAR		

**STANDARD A.11(B)** simplify numeric and algebraic expressions using the laws of exponents, including integral and rational exponents

STANDARDS (TEKS)		STAAR	
Thinking	Content	Content	Common
Simplify	Numeric expression		
Use	Algebraic expression		
	Laws of exponents		
	Integral exponent		
	Rational exponent		
	Vocabulary term used on STAAR		

