

Below are the key skills that students should possess by the end of the first semester of Algebra 1. They are based on the Common Core State Standards and are written in student-friendly terms. The learning targets are grouped by unit of study, and the corresponding state standards and textbook resources are listed. Bold lines indicate the end of a quarter.

Power Standard	#	Learning Target	CCSSM	Unit Booklet
Foundations, Transformation, and Constructions	1	I can accurately identify and define the basic elements of Geometry.	G.CO.1	1
	2	I can make geometric constructions with a variety of tools.	G.CO.12	
			G.CO.13	
	3	I can describe and apply transformations in a plane including rotations, reflection, and translation.	G.CO.2-5	
Congruence	4	I can determine if geometric figures are congruent using rigid motions and corresponding parts.	G.CO.6-7	2
	5	I can prove and apply theorems about lines and angles.	G.CO.9	
	6	I can prove and apply theorems about triangles.	G.CO.10	
	7	I can prove that triangles are congruent using congruence theorems and postulates.	G.CO.8	
Similarity	8	I can determine if geometric figures are similar using similarity transformations, including AA.	G.SRT.1-3	3
	9	I can prove and apply triangle similarity theorems.	G.SRT.4-5	
	10	I can use the relationships of side lengths in special right triangles (30-60-90, 45-45-90).		
Trigonometry	11	I can find trigonometric ratios in a right triangle.	G.SRT.6-7	4
	12	I can apply trigonometric ratios and the Pythagorean Theorem to solve right triangle problems.	G.SRT.8	
Volume	13	I can find the volume of prisms, cylinders, pyramids, cones, and spheres.		5
	14	I can explain volume formulas and use them to solve problems.	G.GMD.1 G.GMD. 3 G.MG.1	
	15	I can identify two-dimensional cross sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two dimensional objects.	G.GMD.4	

Below are the key skills that students should possess by the end of the second semester of Algebra 1. They are based on the Common Core State Standards and are written in student-friendly terms. The learning targets are grouped by unit of study, and the corresponding state standards and textbook resources are listed. Bold lines indicate the end of a quarter.

Power Standard	#	Learning Target	CCSSM	Unit Booklet
Coordinate Geometry	16	I can use the slopes of parallel and perpendicular lines to solve problems.	G.GPE.5	6
	17	I can find the midpoint and length of a line segment.	G.GPE.6	
	18	I can use coordinates to find perimeter and area and classify a geometric figure.	G.GPE.4 G.GPE.7	
	19	I can prove and apply theorems about parallelograms.	G.CO.11	
Circles	20	I can find angle measures in a circle using the relationships among inscribed angles, central angles, radii, chords, and tangents.	G.C.2	7
	21	I can find segment lengths in a circle using the relationships among inscribed angles, central angles, radii, chords, and tangents.	G.C.2	
	22	I can construct the inscribed and circumscribed circles of a triangle.	G.C.3	
	23	I can find arc lengths and areas of sectors of circles.	G.C.5	
Equations of Circles	24	I can relate the equation of a circle to its center and radius.	G.GPE.1	8
	25	I can use coordinates to solve problems involving circles.	G.GPE. 4 G.MG.1	
Probability	26	I can describe the outcomes of events as subsets of a sample space.	S.CP.1	9
	27	I can identify if events are independent or dependent and calculate conditional probability.	S.CP.2,3,6	
	28	I can apply conditional probability to real world data to determine independence or dependence.	S.CP.4 S.CP.5	
Compound Probability	29	I can use the Addition and Multiplication Rules to compute probabilities of compound events.	S.CP.7 S.CP.8	10
	30	I can use permutations and combinations to compute probabilities of compound events.	S.CP.9	