

TSIA Content Area	ACGM Learning Outcomes		Beginning/Intermediate Algebra Concept	Khan Academy Search for Videos	Khan Academy Search for Practice	Purple Math Search
			Enter concept into search bar of link	www.khanacademy.org		www.purplemath.com
1	A B C	1	Converting Decimals to Fractions			
4	A B C	2	Converting Decimals to Percents			
4	A B C	3	Converting Percents to Decimals			
1, 3	A B C	4	Solve Problems using Ratios			
1	A B C	5	Solve Problems using Rates			
4	A B C	6	Solve Problems using Percentages			
1, 3	A B C	7	Solve Problems using Proportions			
4	B F M	8	Mean, Median, Mode			
4	B F M	9	Simple Probability			Not Available
3	A	10	Classify Angles (acute, right, obtuse, straight)			Not Available
3	A B C	11	Complementary Angles			Not Available
3	A B C	12	Supplementary Angles			Not Available
3	A B C	13	Measures of Angles (parallel lines cut by transversal)			Not Available
3	A B D	14	Perimeter		Not Available	
3	A B D	15	Circumference			
3	A B D	16	Area (triangles, rectangles, squares, circles)			
3	A B D	17	Volume (cylinders, cones, spheres, boxes, cubes)			
3	A B D	18	Surface Area (cylinders, boxes, cubes)			
1	A B C D	19	Add Units of Measurement			Not Available
1	A B C D	20	Convert Units of Measurement			
1	A B G	21	Define Mathematical Symbols ($=$, $<$, $>$, $\%$)			Not Available
1	A B G	22	Real Number Properties (cumulative, associative, identity)			
1	A B G	23	Order of Operations			
1	C D	24	Solve Linear Equations			
1	D F	25	Problem Solving with Linear Equations			
1	F	26	Solve Linear Equations with Decimals			

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1	F	27	Solve Linear Equations with Fractions			
1	A F	28	Solve Equations with No Solution			
1	A F	29	Solve Equations with Infinite Solutions			
1	F	30	Solve a Formula for One Variable			
1	L	31	Solve Linear Inequalities			
1	B D F	32	Problem Solving with Inequalities			
4	A E	33	Interpret Bar Graphs			Not Available
4	A E	34	Interpret Line Graphs			Not Available
4	E	35	Plot Ordered Pairs (plot points)			
4	A E	36	Scatter Diagrams (scatter plots)			
1	E	37	Calculate Missing Coordinate of Ordered Pair			
1	E	38	Graph Using Ordered Pairs			
1	E	39	Find Intercepts of Graph			
1	E	40	Graph Vertical Lines			
1	E	41	Graph Horizontal Lines			
1	E	42	Calculate the Slope Given Two Points			
1	E	43	Calculate the Slope Given the Equations			
1	A F	44	Interpret Slope as Rate of Change			
1	E	45	Write Equation Using Slope-Intercept Form			
1	E	46	Graph Using Slope-Intercept Form			
1	E	47	Write Equations Using Point-Slope Form			
1	A H	48	Identify Domain			
1	A H	49	Identify Range			
1	H	50	Identify Functions			
1	E J	51	Solve a System of Linear Equations by Graphing			
1	D I	52	Solve a System of Linear Equations by Substitution			
1	D I	53	Solve a System of Linear Equations by Addition Method			
1	D L M	54	Solve System of Linear Equations Word Problems			
2	I	55	Evaluate Exponential Expressions			
2	I	56	Use Product Rule for Exponents			

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2	I	57	Use Power Rule for Exponents			
2	I	58	Use Quotient Rule for Exponents			
2	I	59	Use Power of a Product Rule for Exponents			
2	I	60	Simplify Expressions with Negative Exponents			
2	I	61	Simplify Expressions with Exponents			
2	H	62	Define a Polynomial Function			
2	I	63	Simplify a Polynomial			
2	I	64	Add Polynomials			
2	I	65	Subtract Polynomials			
2	I	66	Multiply monomial by polynomial (Distributive Property)			
2	I	67	Multiply Polynomials (multiply binomials by polynomials)			
2	I	68	Multiply Two Binomials			
2	I	69	Square a Binomial			
2	I	70	Write Numbers in Scientific Notation			
2	I	71	Convert Numbers from Scientific Notation to Standard Form			
2	I	72	Divide a Polynomial by a Monomial			
2	I	73	Divide Polynomials Using Long Division			
2	I	74	Divide Polynomials Using Synthetic Division		Not Available	
2, 3	I	75	Factor out the GCF from a Polynomial			
2, 3	I	76	Factor a Polynomial by Grouping		Not Available	
2, 3	I	77	Factor Trinomials (factor quadratics)			
2, 3	I	78	Factor a Perfect Square Trinomial			
2, 3	I	79	Factor a Difference of Squares			
2, 3	J	80	Solve Quadratic Equations by Factoring			
2, 3	J	81	Identify x-intercepts of Quadratic Functions			
2, 3	J L M	82	Solve Problems Modeled by Quadratic Equations			
2	H	83	Find Domain of Rational Function			
2	I	84	Simplify Rational Expressions			
2	I	85	Multiply Rational Expressions			
2	I	86	Divide Rational Expressions			

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2	I	87	Add Rational Expressions			
2	I	88	Subtract Rational Expressions			
2	J	89	Solve Rational Equations			
2	J L M	90	Solve Problems Modeled by Rational Functions			
2	L	91	Find the Intersection of Two Sets			
2	L	92	Find the Union of Two Sets			
2	J	93	Solve Compound Inequalities			Not Available
2	J	94	Solve Absolute Value Equations			
2	K	95	Solve Absolute Value Inequalities			
2	K	96	Graph a System of Linear Inequalities			
2	I	97	Calculate Square Roots			
2	I	98	Calculate Cube Roots			
2	I	99	Calculate nth Roots			
2	J	100	Graph Square Roots			
2	J	101	Graph Cube Roots			
2	I	102	Simplify Expressions with Rational Exponents			
2	I	103	Simplify Radicals			
2	I	104	Use Product Rule for Radicals	Not Available	Not Available	
2	I	105	Use Quotient Rule for Radicals	Not Available	Not Available	
2	I	106	Rationalize Denominators			
2	J	107	Solve Radical Equations			
2	J L M	108	Pythagorean Theorem			Not Available
2	G	109	Add Complex Numbers			
2	G	110	Subtract Complex Numbers			
2	G	111	Multiply Complex Numbers			
2	G	112	Divide Complex Numbers			
2, 3	J	113	Use Quadratic Formula to Solve Quadratic Equations			
2, 3	J L M	114	Solve Problems Using Quadratic Equations			
2, 3	J	115	Find the Vertex of a Quadratic Function			
2	J M	116	Graph Quadratic Functions			