



Intermediate Algebra

1st nine weeks

Assessment	Content	PASS	# of Days	ACT Standard
1.1 – Tips for Success in Math			1	
1.2 -- Algebraic Expressions and Sets of Numbers	<ul style="list-style-type: none"> *Evaluates Variable Expressions *Writes Variable Expressions from Verbal Expressions *Simplify number sentences with Absolute Value *Identifies Rational and Irrational # *Explains Similarities/Differences of Subsystems. 	5B (1) 5B (2) 1B (3) 1A (1) 1A (2)	2	20-23
1.3 – Operations of Real Numbers	*Simplify using Order of Operations	1B (4)	3	
1.4 -- Properties of Real Numbers	<ul style="list-style-type: none"> *Identify/uses properties to simplify expressions *Uses Distributive Property *Writes equations from verbal expressions *Translates Equations 	1C (1) 1C (2) 5D (3) 5H (2)	3	24-27
2.1 – Linear Equations in One Variable	<ul style="list-style-type: none"> *Solves Linear Equations *Solves Fractional Equations *Solve Equations with one or two variables 	5D (4) 5D (10) 5H (3)	4	28-32
2.2 – An Introduction to Problem Solving	<ul style="list-style-type: none"> *Uses expressions in word problems *Uses equations in word problems *Identifies problem situations *Solves Geometric Problems *Identifies appropriate equation *Applies algebra/geometry/other to real world problems *Translates Equations 	5D (11) 5D (12) 7B (1) 3B (1) 7C (1) 7C (3) 5H (2)	2	28-32
2.3 – Formulas and Problem Solving	<ul style="list-style-type: none"> *Evaluates Formulas *Manipulates Algebraic Equations *Applies geometric units *Identifies Appropriate Equations 	5D (2) 5H (4) 2A (3) 7C (1)	2	13-19
2.4 – Linear Inequalities and Problem Solving	<ul style="list-style-type: none"> *Describes intervals *Identifies inequalities represented on a number line. *Solves inequalities *Solves inequalities 	4B (6) 4B (7) 5E (1) 5H (10)	2	24-27
2.5 – Compound Inequalities	*Solves compound/absolute value inequalities	5E (2)	2	
2.6 – Absolute Value Equations	*Solves absolute value equations.	5D (8)	3	28-32
2.7 – Absolute Value Inequalities	*Solves compound/absolute value inequalities	5E (2)	3	28-32
3.1 – Graphing Equations	<ul style="list-style-type: none"> *Plots points/interprets information on coordinate plane. *Interprets types of equation from graph *Creates chart/table to interpret algebraic expressions *Creates tables/graphs to interpret functions *Graph equations/inequalities *Identifies graph of linear/absolute value 	3A (1) 5F (5) 5F (7) 5F (8) 5F (9) 5F (11)	2	20-23
3.2 – Introduction to Functions	<ul style="list-style-type: none"> *Identifies if graph represents a function *Interprets tables/graphs/ordered pairs for function *Determines domain and range of a function 	4B (1) 4B (4) 4B (5)	2	28-32
3.3 – Graphing Linear Functions	<ul style="list-style-type: none"> *Creates tables/graphs/ordered pairs. *Recognizes effect of changing slope/y-intercept 	4B (2) 4C (1)	3-4	

Assessment	Content	PASS	# of Days	ACT Standard
3.4 – The Slope of a Line	*Recognizes effect of changing slope/y-intercept *Recognizes changes – Horizontal/ vertical shifts/reflections. *Describes slope as a rate of change *Finds slope of line	4C (1) 4C (2) 5F (1) 5F (2)	3	20-23
3.5 – Equations of a Line	*Determines Equation of a line *Determines Equation of a line (point slope) *Determines Equivalent Equations	5F (3) 5F (4) 5H (1)	3	24-27
3.7 – Graphing Linear Inequalities	*Interprets types of inequalities from a graph *Graphs equations/inequalities *Identifies graph of inequalities	5F (6) 5F (9) 5F (10)	2	
4.1 – Solving Systems of Linear Equations in Two Variables	*Solves systems of linear equations *Determines number of solutions *Recognizes point of intersection	5D (5) 5D (6) 5D (7)	5	28-32
4.3 – Systems of Linear Equations and Problem Solving	*Solves systems of linear equations *Identifies appropriate equation *Identifies missing/extraneous information *Applies algebra/geometry/other to real world problems	5D (5) 7C (1) 7C (2) 7C (3)	2	
4.5 – Systems of Linear Inequalities	*The student will solve a system of inequalities to solve mathematical problems.	1D (7)	2	
5.1 – Exponents and Scientific Notations	*Simplifies basic operations	5G (2)	3	24-27
5.2 – More Work with Exponents and Scientific Notation	*Simplifies basic operations	5G (2)	2	24-27
5.3 – Polynomials and Polynomial Functions	*Simplifies basic operations *Simplifies polynomials	5G (2) 5C (2)	2	24-27
5.4 – Multiplying Polynomials	*Multiplies monomials/ binomials/polynomials *Simplifies basic operations *Multiplies/divides monomials *Simplifies polynomials	5C (7) 5G (2) 5C (1) 5C (2)	3	20-27
5.5 – The Greatest Common Factor and Factoring by Grouping	*Factors greatest common monomial	5C (4)	3	
5.6 – Factoring Trinomials	*Factors Polynomials *Factors quadratic trinomials	5C (3) 5C (6)	4	
5.7 – Factoring by Special Products (no cubic functions)	*Factors/identifies two squares, perfect square trinomials	5C (5)	1	24-27
5.8 – Solving Equations by Factoring and Problem Solving (no graphing)	*Solves polynomial equations	5H (6)	1	24-27

3rd nine weeks	Assessment	Content	PASS	# of Days	ACT Standard
	6.1 – Rational Functions and Multiplying and Dividing Rational Expressions	*Determines domain and range *Simplifies basic operations *Performs basic operations on rational algebraic expressions	4B (5) 5G (2) 5B (3)	4	24-27
	6.2 – Adding and Subtracting Rational Expressions	*Simplifies basic operations *Performs basic operations on rational algebraic expressions	5G (2) 5B (3)	3	
	6.3 – Simplifying Complex Fractions	*Simplifies basic operations *Performs basic operations on rational algebraic expressions	5G (2) 5B (3)	2	
	6.4 – Dividing Polynomials: Long Division and Synthetic Division	*Performs basic operations on rational algebraic expressions	5B (3)	4	
	6.5 – Solving Equations Containing Rational Expressions	*Uses ratio, proportion, and percent	5D (1)	2	
	6.7 – Variation and Problem Solving	*Uses problem solving approaches	7B	2	
	7.1 – Radicals and Radical Functions	*Estimates/calculates square/cubed roots	1B (1)	4	24-27
	7.2 – Rational Exponents	*Simplifies Negative or Fractional Exponents *Simplifies negative/fractional exponents	1B (2) 5G (3)	4	
7.3 – Simplifying Radical Expressions	*Uses distance formula to verify distance *Performs basic operations on radical expressions	3B (3) 5B (4)	4-5	24-27	
4th nine weeks	Assessment	Content	PASS	# of Days	ACT Standard
	7.4 – Adding, Subt, Multiplying Radical Expressions	*Performs basic operations on radical expressions	5B (4)	4	
	7.5 – Rationalizing Denominators and Numerators of Radical Expressions	*Performs basic operations on radical expressions	5B (4)	2	
	7.6 – Radicals Equations and Problem Solving	*Uses Pythagorean Theorem *Solves Radical Equations	3B (2) 5D (9)	2	
	7.7 – Complex Numbers	*Relates complex numbers to real/imaginary. *Simplifies/solves complex number equations *Simplifies imaginary/complex numbers	1A (3) 5H (9) 5G (1)	3	24-27
	8.1 – Solving Quadratic Equations by Completing the Square	*Completes the square	5H (5)	3	
	8.2 – Solving Quadratic Equations by the Quadratic Formula	*Identifies problem situation	7B (1)	2-3	
	8.3 – Solving Equations by Using Quadratic Models	*Identifies problem situations	7B (1)	4	20-23
	8.5 – Quadratic Functions and Their Graphs	*Determines Equivalent Equations *Models situation with appropriate function	5H (1) 4A (1)	3	28-32
	8.6 – Further Graphing of Quadratic Functions	*Identifies problem situations	7B (1)	2	
10.1 -- The Parabola and the Circle	*Determines graph from equation *Identifies/describes conical equations/graph *Determines characteristics of conic sections	5F (12) 5F (13) 5F (14)	6	28-32	
10.2 – The Ellipse and the Hyperbola	*Determines graph from equation *Identifies/describes conical equations/graph *Determines characteristics of conic sections	5F (12) 5F (13) 5F (14)	6	28-32	