Intermediate Algebra Learning Targets - Tri B
2nd Edition 2014-15

Unit 5 – Solving Quadratic Equations	Benchmark
5.1 I can demonstrate understanding of how to find real and non-real solutions of quadratic equations for real-world situations. Include: ✓ Solve by factoring, finding square roots, completing the square and the quadratic formula ✓ Simplify a radical expression (including those that create imaginary numbers)	9.2.4.1 9.2.4.3 9.2.3.3
5.2 I understand how to verify that my solution works and that it makes sense. Include: ✓ Add and subtract radical expressions (including those with imaginary numbers) ✓ Multiply radical binomials (including those that contain complex numbers)	9.2.3.5 9.2.4.1 9.2.4.3
5.3 I can determine the number of real and non-real solutions for a quadratic equation. Include: ✓ Find by factoring, solving the equation and using the graph	9.2.4.3
5.4 I can represent relationships using quadratic inequalities and find solutions.	9.2.4.1
Extensions: ➢ Write and solve quadratic models.	

Unit 6 – Polynomial Functions	Benchmark
6.1 I can graph polynomial functions and demonstrate understanding of the significant features of its graph and their relationship to real-world situations. Include: ✓ Intercepts, zeros, maxima, minima ,intervals of increase and decrease, domain and range	9.2.2.6 9.2.1.3 9.2.1.6
6.2 I can demonstrate understanding of operations with polynomials. Include: ✓ Add, subtract, multiply, divide	9.2.3.2
6.3 I can demonstrate understanding of how to solve polynomial equations. Include: ✓ Solve by graphing and factoring o Using quadratic formula o no rational root theorem ✓ Fundamental Theorem of Algebra ✓ Convert to Standard Form ✓ Convert from Standard form to Factored Form ✓ Find Polynomial models and use to solve real-world situations	9.2.3.2 9.2.1.6
Extensions: ➢ Find rational zeroes: Factor by grouping, sum/difference of cubes	

Unit 7 – Root Functions and Radical Equations	Benchmark
7.1 I can graph square root and cube root functions and demonstrate understanding of the significant features of its graph. Include: ✓ Intercepts, domain and range *Prior Knowledge:* • *I can evaluate and approximate square roots.*	9.2.2.6 9.2.1.3 9.2.1.6
7.2 I can demonstrate understanding of radical expressions and expressions with rational exponents. Include: ✓ Properties of Rational Exponents ✓ Find the inverse of a function (graphically) *Prior Knowledge:* • *I can use the multiplication and division properties of exponents.* • *I can evaluate expressions that contain negative and zero exponents.*	9.2.3.1 9.2.3.6
7.3 I can solve equations with radical expressions and expressions with rational exponents.	9.2.3.7 9.2.4.7 9.2.4.8
Extensions: ➢ Find the inverse of a function (algebraically) ➢ Find the composites of a function	

Unit 8 – Absolute Value Functions	Benchmark
8.1 I can graph absolute value equations and inequalities and demonstrate understanding of the significant features of its graph. *Prior Knowledge:* • *I can evaluate expressions containing absolute values.* • *I can solve absolute value equations and graph the solutions on a number line* • *Vertex, intercepts, intervals of increase and decrease, domain and range*	9.2.2.6 9.2.1.3 9.2.1.6
8.2 I can find solutions of absolute value equations and inequalities. *Prior Knowledge:* • *I can solve absolute value inequalities and graph the solutions on a number line.* • *I can write absolute value equations and inequalities to represent a real world situation.*	9.2.4.6