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Math 2 Unit 1: Modeling with Quadratics

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| **Date** | **Day of Unit** | **Standard** | **Lesson** | **Students will be able to…** | **Homework** |
| Wed  1/25 | 1 | Review from Math 1 | “Factoring Bootcamp” Day 1  **Algebra 1 Chapter 9.5, 9.7, 9.8** | -Factor out GCF  -Factoring using grouping  -Factor ax2+bx+c when a=1  -Factor difference of Squares | Packet Pg. 120 (1-30)  Packet Pg. 124 (1-30, skip 9, 10, 14, 27)  Packet Pg. 126 (2-14 even, 37-42)  Challenge 9.5, 9.7, 9.8 |
| Thurs  1/26 | 2 | Review from Math 1 | “Factoring Bootcamp” Day 2  **Algebra 1 Chapter 9.6** | -Factor out GCF  -Factor ax2+bx+c when a>1 | Packet Pg. 122 (left column 1-34)  Challenge 9.6 |
| Fri  1/27 | 3 | NC.M2.N-RN.3 | 1.1 Rational/Irrational/Complex  **Algebra 1 Chapter 11.1**  **Algebra 2 Chapter 5.6** | -Simplify a radical involving products and quotients (not necessarily perfect squares).  Understand the square root of a -1 is imaginary. | Packet Pg. 146 (3-60 mult. of 3)  Packet Pg. 66 (26-28, 41-43, 56-58)  Challenge 11.1, 5.6 |
| Mon  1/30 | 4 | NC.M2.N-RN.3 | **Quiz on Factoring / Rational / Irrational / Complex**  1.2 Polynomials (Exponent self-study? Focus on add/subtract/multiply rules)  **Algebra 1 Chapter 9.1** | -Describe polynomials  -Add and Subtract Polynomials | Packet Pg. 112 (33-57 mult. of 3)  Challenge 9.1 |
| Tues 1/31 | 5 | NC.M2.N-CN.1  NC.M2.A-REI.1 | 1.3 Solving Quadratics  **Algebra 1 Chapter 10.4 and**  **Algebra 1 Chapter 10.5** | -Solve quadratic equations by graphing.  -Solve quadratic equations using square roots. | Packet Pg. 134 (1-6, 46-53)  Packet Pg. 136 (31-52) |
| Wed 2/1 | 6 | NC.M2.A-REI.4a  NC.M2.A-REI.4b  NC.M2.F-IF.8 | 1.3 Solving Quadratics  **Algebra 1 Chapter 10.7 and**  **Algebra 1 Chapter 10.8** | -Use the quadratic formula when solving quadratic equations.  -Choose an appropriate method for solving a quadratic equation. | Packet Pg. 140 (1,4,10,11,18,26)  Packet Pg. 142 (left column 1-27) |
| Thurs 2/2 | 7 | NC.M2.A-SSE.3  NC.M2.A-APR.1 | 1.4 Factoring/Completing the Square  **Algebra 1 Chapter 10.6** | -Factor ax2+bx+c when a>1  -Use Completing the Square to solve quadratic equations. | Packet Pg. 138 (left column every other problem: 1, 5, 9, 13, etc) |
| Fri  2/3 | 8 | NC.M2.F-IF.8  NC.MC.F-IF.9 | 1.4 Factoring/Completing the Square  **Algebra 2 Chapter 5.7** | -Solve and rewrite equations/functions by Completing the Square.  \*Ultimate Goal: Be able to move from standard form to vertex form. | Packet Pg. 68 (9-23 odd) |
| Mon  2/6 | 9 | First ½ Standards | **Review** |  | Unit 1 Test 1 Review Sheet |
| Tues  2/7 | 10 | First ½ Standards | **Test** |  | Systems of Equations Worksheet multiples of 3 |
| Wed 2/8 | 11 | NC.M2.A-APR.1  NC.M2.A-APR.3 | 1.5 Characteristics of Quadratic Graphs  **Algebra 1 Chapter 10.1** | -Graph quadratic functions of the form  y = ax2 and y = ax2 + c | Packet Pg. 128 (left column 1– 28) |
| Thurs  2/9 | 12 | NC.M2.A-SSE.1b  NC.M2.A-CED.2  NC.M2.F-BF.1 | 1.6 Graphing (and Solving) Quadratics  **Algebra 1 Chapter 10.2** | -Graph quadratic functions of the form  y = ax2 + bx + c | Packet Pg. 130 (left column 1-19) |
| Fri  2/10  **ER** | 13 |  | **Quiz** |  |  |
| Mon 2/13 | 15 | NC.M2.A-SSE.1a/b  NC.M2.A-APR.1  NC.M2.A-CED.1/2/3  NC.M2.A-REI.7  NC.M2.F-IF.4/7/9 | 1.7 Quadratic Systems  **Algebra 2 Page 577** | -Solve systems that include quadratic equations both algebraically and graphically. | Packet Pg. 577 |
| Tues  2/14 | 16 | NC.M2.A-CED.1 | 1.8 Quadratic Inequalities  **Algebra 2 Page 269** | -Use a graphing calculator to graph individual quadratic inequalities and systems of quadratic inequalities in the coordinate plane. | Packet Pg. 269 |
| Wed  2/15 | 17 | All Standards | **Review** | Problems in Packet | Chapter 9 and Chapter 10 Test Review |
| Thurs  2/16 | 18 | All Standards | **Test** |  | **No**  **Homework** |

Homework Grade: