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Math 2 Unit 1: Modeling with Quadratics

| Date | $\begin{gathered} \text { Day } \\ \text { of } \\ \text { Unit } \\ \hline \end{gathered}$ | Standard | Lesson | Students will be able to... | Homework |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Wed } \\ & 1 / 25 \end{aligned}$ | 1 | Review from Math 1 | "Factoring Bootcamp" Day 1 <br> Algebra 1 Chapter 9.5, 9.7, 9.8 | -Factor out GCF <br> -Factoring using grouping <br> -Factor $a x^{2}+b x+c$ when $a=1$ <br> -Factor difference of Squares | Packet Pg. 120 (1-30) <br> Packet Pg. 124 (1-30, skip 9, 10, 14, 27) <br> Packet Pg. 126 (2-14 even, 37-42) Challenge 9.5, 9.7, 9.8 |
| $\begin{gathered} \text { Thurs } \\ 1 / 26 \end{gathered}$ | 2 | Review from Math 1 | "Factoring Bootcamp" Day 2 Algebra 1 Chapter 9.6 | -Factor out GCF <br> - Factor $a x^{2}+b x+c$ when $a>1$ | Packet Pg. 122 (left column 1-34) Challenge 9.6 |
| $\begin{gathered} \text { Fri } \\ 1 / 27 \end{gathered}$ | 3 | $\begin{gathered} \text { NC.M2.N- } \\ \text { RN. } 3 \end{gathered}$ | 1.1 Rational/Irrational/Complex <br> Algebra 1 Chapter 11.1 <br> Algebra 2 Chapter 5.6 | -Simplify a radical involving products and quotients (not necessarily perfect squares). <br> 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 |
| $\begin{aligned} & \text { Mon } \\ & 1 / 30 \end{aligned}$ | 4 | $\begin{gathered} \text { NC.M2.N- } \\ \text { RN. } 3 \end{gathered}$ | Quiz on Factoring / Rational / Irrational / Complex <br> 1.2 Polynomials (Exponent self-study? Focus on add/subtract/multiply rules) Algebra 1 Chapter 9.1 | -Describe polynomials <br> -Add and Subtract Polynomials | Packet Pg. 112 (33-57 mult. of 3) Challenge 9.1 |
| Tues 1/31 | 5 | $\begin{aligned} & \text { NC.M2.N- } \\ & \text { CN.1 } \\ & \text { NC.M2.A- } \\ & \text { REI. } 1 \end{aligned}$ | 1.3 Solving Quadratics Algebra 1 Chapter 10.4 and <br> Algebra 1 Chapter 10.5 | -Solve quadratic equations by graphing. -Solve quadratic equations using square roots. | Packet Pg. 134 (1-6, 46-53) <br> Packet Pg. 136 (31-52) |
| Wed 2/1 | 6 | NC.M2.A- <br> REI.4a <br> NC.M2.A- <br> REI.4b <br> NC.M2.F- <br> 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. <br> -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 | $\begin{gathered} \text { NC.M2.A- } \\ \text { SSE. } 3 \\ \text { NC.M2.A- } \\ \text { APR. } 1 \\ \hline \end{gathered}$ | 1.4 Factoring/Completing the Square Algebra 1 Chapter 10.6 | -Factor $a x^{2}+b x+c$ when $a>1$ <br> -Use Completing the Square to solve quadratic equations. | Packet Pg. 138 (left column every other problem: 1, 5, 9, 13, etc) |


| $\begin{aligned} & \text { Fri } \\ & 2 / 3 \end{aligned}$ | 8 | $\begin{gathered} \text { NC.M2.F- } \\ \text { IF.8 } \\ \text { NC.MC.F- } \\ \text { IF. } 9 \end{gathered}$ | 1.4 Factoring/Completing the Square Algebra 2 Chapter 5.7 | -Solve and rewrite equations/functions by Completing the Square. <br> *Ultimate Goal: Be able to move from standard form to vertex form. | Packet Pg. 68 (9-23 odd) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \hline \text { Mon } \\ 2 / 6 \\ \hline \end{gathered}$ | 9 | First $1 / 2$ Standards | Review |  | Unit 1 Test 1 Review Sheet |
| $\begin{gathered} \hline \text { Tues } \\ 2 / 7 \end{gathered}$ | 10 | First $1 / 2$ Standards | Test |  | Systems of Equations Worksheet multiples of 3 |
| $\begin{gathered} \text { Wed } \\ 2 / 8 \end{gathered}$ | 11 | $\begin{gathered} \text { NC.M2.A- } \\ \text { APR.1 } \\ \text { NC.M2.A- } \\ \text { APR.3 } \end{gathered}$ | 1.5 Characteristics of Quadratic Graphs Algebra 1 Chapter 10.1 | -Graph quadratic functions of the form $y=a x^{2} \text { and } y=a x^{2}+c$ | Packet Pg. 128 (left column 1-28) |
| $\begin{gathered} \text { Thurs } \\ 2 / 9 \end{gathered}$ | 12 | $\begin{array}{\|c} \hline \text { NC.M2.A- } \\ \text { SSE.1b } \\ \text { NC.M2.A- } \\ \text { CED.2 } \\ \text { NC.M2.F- } \\ \text { BF.1 } \\ \hline \end{array}$ | 1.6 Graphing (and Solving) Quadratics <br> Algebra 1 Chapter 10.2 | -Graph quadratic functions of the form $y=a x^{2}+b x+c$ | Packet Pg. 130 (left column 1-19) |
| $\begin{gathered} \hline \text { Fri } \\ 2 / 10 \\ \text { ER } \\ \hline \end{gathered}$ | 13 |  | Quiz |  |  |
| $\begin{aligned} & \text { Mon } \\ & 2 / 13 \end{aligned}$ | 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 <br> Algebra 2 Page 577 | -Solve systems that include quadratic equations both algebraically and graphically. | Packet Pg. 577 |
| $\begin{aligned} & \text { Tues } \\ & 2 / 14 \end{aligned}$ | 16 | $\begin{aligned} & \text { NC.M2.A- } \\ & \text { CED. } 1 \end{aligned}$ | 1.8 Quadratic Inequalities <br> 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 |
| $\begin{aligned} & \text { Wed } \\ & 2 / 15 \\ & \hline \end{aligned}$ | 17 | All <br> Standards | Review | Problems in Packet | Chapter 9 and Chapter 10 Test Review |
| $\begin{aligned} & \text { Thurs } \\ & 2 / 16 \\ & \hline \end{aligned}$ | 18 | All <br> Standards | Test |  | No Homework |

