## Unit 1: Functions

F1: Demonstrate an understanding of functions, their representations, and their inverses, and make connections between the algebraic and graphical representations of functions using transformations.
Determine the zeros and the maximum or minimum of a quadratic function, and solve problems involving quadratic functions, and solve problems involving quadratic functions, including problems arising from real-world applications
Demonstrate an understanding of equivalence as it relates to simplifying polynomial, radical and rational expressions

| Lesson | Topic | Homework |
| :---: | :---: | :---: |
| 1.0 | Prerequisite skills-Stations | p. 2 \#1-15 (pick and choose) |
| 1.1 | Functions, Domain, and Range | p. 12 \#C1, 1, 2*, 3abc, 4bc, 5, 6*, 7a, 8, 9ab, 12abcd, 17, <br> 18 *Use Desmos to sketch graph |
| 1.2 | Functions and Function Notation | p. 22 \#C1,C2,1ace, 3a, + Handout |
| 1.3 | Factoring | Handout |
| 1.4A | Maximum or Minimum of a Quadratic Function - Completing the Square | p. 31 \#C2, 1ace, 2bcef, 5-9, 11 |
| 1.4B | Maximum or Minimum of a Quadratic Function - Partial Factoring | p. 31 Handout (\#1acdf,2def, Problems 1-2) |
| 1.5A | Working with Radicals | p. 39 \#1-3, 4bdf, 5bdf, 6bcde, 8ad, 9acd, 11, 13, 14, 16c |
| 1.5B | Working with Radicals - Extend | p. 39 \#7cdef, 8bc, 12, 15, 16abde,17 <br> + Handout |
| 1.6 | Solve Quadratic Equations | p. 49 \#C1cdf, 3bdf, 5c, 6abc, 7, 12, 13a |
| 1.7A | Determining a Quadratic Equation given its roots | p. 57 \#C3, 3ac, 4ac, 5ac, 6a, 8a, 11c, 15 |
| 1.7B | Quadratic Applications | p. 13 \#8, p. 50 \#8,15,16,17, p. 57 \# 7,9e,10,12, Handout 1.4B \#3,9e,10,12 |
| 1.8 | Solving Linear and Quadratic Systems | p. 67 \#C2,1ac,3ab,5ab,7,10,15,19 |
|  | Review | p. 70 Review <br> p. 72 Practice Test , Back of Handout 1.4B |

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