

**Honors Math 2: Unit 6 Homework Outline**

**NC.M2.A-CED.1** Create equations that describe numbers or relationships. Create equations and inequalities in one variable that represent quadratic, square root, inverse variation, and right triangle trigonometric relationships and use them to solve problems.

**NC.M2.A-CED.2** Create equations that describe numbers or relationships. Create and graph equations in two variables to represent quadratic, square root and inverse variation relationships between quantities.

**NC.M2.A-CED.3** Create equations that describe numbers or relationships. Create systems of linear, quadratic, square root, and inverse variation equations to model situations in context.

**NC.M2.A-REI.2** Understand solving equations as a process of reasoning and explain the reasoning. Solve and interpret one variable inverse variation and square root equations arising from a context, and explain how extraneous solutions may be produced.

**NC.M2.A-REI.7** Solve systems of equations. Use tables, graphs, and algebraic methods to approximate or find exact solutions of systems of linear and quadratic equations, and interpret the solutions in terms of a context.

**NC.M2.A-REI.11** Represent and solve equations and inequalities graphically Extend the understanding that the 𝑥-coordinates of the points where the graphs of two square root and/or inverse variation equations 𝑦 = (𝑥) and 𝑦 = (𝑥) intersect are the solutions of the equation 𝑓(𝑥) = 𝑔(𝑥) and approximate solutions using graphing technology or successive approximations with a table of values.

**NC.M2.F-IF.7** Analyze functions using different representations. Analyze quadratic, square root, and inverse variation functions by generating different representations, by hand in simple cases and using technology for more complicated cases, to show key features, including: domain and range; intercepts; intervals of increasing/decreasing

**NC.M2.F-BF.1** Build a function that models a relationship between two quantities. Write a function that describes a relationship between two quantities by building quadratic functions with real solution(s) and inverse variation functions given a graph, a description of a relationship, or ordered pairs (include reading these from a table).

**NC.M2.F-BF.3** Build new functions from existing functions. Understand the effects of the graphical and tabular representations of a linear, quadratic, square root, and inverse variation function f with 𝑘 ∙ 𝑓(𝑥), 𝑓(𝑥) + 𝑘, 𝑓(𝑥 + 𝑘) for specific values of 𝑘 (both positive and negative).

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| **Date** | **Lesson** | **Homework** |
| Thursday, March 21st | Math 1 Review & New: Features of Functions | Unit 6 Placemat |
| Friday, March 22nd | Parent Function: Square Root  6.1 Watch Out For That Wave  (Radical Functions + Intro to Direct Variation) | 6.1 Ready, Set, Go: All |
| Monday, March 25th | 6.2 Time’s Running Out  (Inverse Variation Functions) | 6.2 Ready, Set, Go: All |
| Tuesday, March 26th | 6.3 lesson | 6.3 RSG |
| Wednesday, March 27th | 6.4 Tools for Solving  (Multiple Representations of Square Root and Inverse Variation Functions) | 6.4 Ready: Ready, Set, Go |
| Thursday, March 28th | 6.5 Let the Games Begin! (Part 2)  (Transformations for Quadratic, Square Root, and Inverse Variation Functions) | 6.5 Ready: All, Go: All |
| Friday, March 29th | **WORKDAY – NO SCHOOL ☺** | Play in the sun! |
| Monday, April 1st | Quiz and 6.6 | 6.6 Ready: All, Go: All |
| Tuesday, April 2nd | Transformations of Quadratic, Square Root, & Inverse Variation Functions  6.6 Transformations Exploration  6.7 Let’s Make a Function! | 6.7 Set: All, Go: All |
| Wednesday, April 3rd | (Review Day) | Review Sheet |
| Thursday, April 4th | **Unit 6 Part 1 Test** |  |

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| Friday, April 5th | Direct & Inverse Variation Notes | TBA: |
| Monday, April 8th | 6.8 Extraneous Events | 6.8 Ready and Set, Go: #19,20 |
| Tuesday, April 9th | 6.10 Algebra and Functions | 6.10 Set: All |
| Wednesday, April 10th | Solving Radical Equations Practice | Handout |
| Thursday, April 11th | Review for Test | Review Sheet |
| Friday, April 12th | **Unit 6 Part 2 Test** |  |