**Honors Fall Project Algebra II**

**Teacher**: Marina Simpson **School :** Cordova High **Due date:** Wednesday, Feb 12, 2020

*NO LATE PROJECTS WILL BE ACCEPTED!!!*

**Topics for the project:**

1) Chapter 4 Quadratic Functions and equations “Pull it all together” tasks 1 and 2

2) Chapter 5 Polynomials and Polynomial Functions “Pull it all together” tasks 1 and 2

3) Chapter 6 Radical Functions and Rational Exponents “Pull it all together” tasks 1 and 2

4) Chapter 7 Exponential and Logarithmic Functions “Pull it all together” tasks 1 and 2

**PROJECT INSTRUCTIONS**

Chapters are randomly assigned to students to assure that all chapters are covered though students’ presentations, and to assure individuality. Please check the next page for the chapter you were assigned. All projects are to be done as a PowerPoint Presentation with at least 12 slides, including the Title slide, and refence slide. and a “key concept” project board (the best will be picked and hanged on the classroom walls). You will be graded based on the rubric below.

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| **Title page/slide 1** | * **Topic you were assigned**
* Your name;
* Class name (Algebra 2);
* Teacher’s name (Marina Simpson);
* Date of submission (Feb 12, 2020).
 | **5pts**(1pt for each bullet point) |
| **Part 1** | **Power Point Presentation****Slides 2-12** | * Task 1 directions are included in the PowerPoint
* Task 1 is clearly and accurately explained/solved
* Task 1 main concepts/related formulas or rules are highlighted
* Task 2 directions are included in the PowerPoint
* Task 2 is clearly and accurately explained/solved
* Task 2 main concepts/related formulas or rules are highlighted
* Related Graphs/pictures included (may used Desmos.com to graph and screenshot graphs, include the links in references for anything you “looked up on the internet”)
* PowerPoint presentation is neat/interesting/colorful/ uses special effects between the slides
* Power point presentation has 10 slides (excluding title page and reference page)
* Reference page/last page includes web links to any information, including pictures and graphs taken off internet.
 | **20pts**(2pts for each bullet point) |
| **Part 2** | **Poster board***Summary/proof of main concepts/formulas for each chapter* | * Includes 2 main concepts/theorems/formulas/rules learned in the chapter, or newly learned throughout the project (such as Pascal’s triangle in ch 5)
* Shows explanation/proof/examples of how these rules, neatly done

Examples of concepts to include on the poster board (but not limited to):***Chapter 4****: standard form vs vertex form and related formulas, difference of squares, perfect square trinomial, completing a square, quadratic formula, complex numbers, factoring “rule”****Chapter 5****: adding/subtracting polynomials, zeros of polynomial functions, solving polynomial equations in MENU 5 (roots vs intersect), multiplying binomials/trinomials, multiplicities and their use, Conjugate theorem, Rational Root Theorem, Decarte’s rule of signs, Fundamental Theorem of Algebra, Sum or Difference of cubes****Chapter 6:*** *Rational exponents in radical form, Rules of exponents, Inverse functions (tables, graphs, algebraically), Composition of functions and domains.****Chapter 7:*** *Log form to exponential form, Exponential graphs, Exponential and Logarithmic functions/graphs, decay vs growth factor, “must know” rules of logs, Compound formulas, half life formula* | **10pts**To earn 10 pts make sure your project is neat and easily readable from afar. |
| **Email the completed PowerPoint presentation** | To vojinovicm@scsk12.org by **February 12,2020.**  Make sure to include your first and last name in the email’s heading, and do not use google docs!!! The project should be ATTACHED to the email. |  |

