PCSD Lesson Planning Template

Grade Level 9th Algebra I		**Teacher/Room**: S. Pinson/Room 182		Week of: January 23-27, 2017

Unit Vocabulary: see attached

Instructional Strategies Used: direct instruction, independent study, interactive instruction, partners

Day 1	Day 2	Day 3	Day 4	Day 5
GSE/GPS Standard(s): **MGSE9-12.N.RN.2** Rewrite expressions involving radicals using the properties of exponents. (i.e., simplify and/or use the operations of addition, subtraction, and multiplication, with radicals within expressions limited to square roots).	**GSE/GPS Standard(s)**: **MGSE9-12.N.RN.2** Rewrite expressions involving radicals using the properties of exponents. (i.e., simplify and/or use the operations of addition, subtraction, and multiplication, with radicals within expressions limited to square roots).	**GSE/GPS Standard(s)**: **MGSE9-12.N.RN.2** Rewrite expressions involving radicals using the properties of exponents. (i.e., simplify and/or use the operations of addition, subtraction, and multiplication, with radicals within expressions limited to square roots).	**GSE/GPS Standard(s)**: **MGSE9-12.N.RN.2** Rewrite expressions involving radicals using the properties of exponents. (i.e., simplify and/or use the operations of addition, subtraction, and multiplication, with radicals within expressions limited to square roots).	**GSE Standard(s)**: **MGSE9-12.A.APR.1** Add, subtract, and multiply polynomials.
EQ Question: What domain restrictions must I remember in order to solve radical equations?	**EQ Question:** What domain restrictions must I remember in order to solve radical equations?	**EQ Question:** All in this unit.	**EQ Question:** All in this unit	**EQ Question:** How are polynomial operations related to operations in the real number system?
Mini Lesson: simplifying radicals color WS **Activating Strategies:** Solve an equation involving a square root. **Lesson:** Solving Radical Equations 1. Guided notes on solving radical equations 2. Guided practice 3. Assignment **Resource/Materials:** guided notes, worksheets	**Mini Lesson:** computer lab **Activating Strategies:** Can you solve this radical equation? **Lesson:** Solving Radical Equations 1. More practice with solving radical equations 2. Assignment - Classwork **Resource/Materials:** guided notes, worksheets, logins	**Mini Lesson:** 24 **Activating Strategies:** Directions for review **Lesson:** Review for Test **Resource/Materials:** guided notes, worksheets	**Mini Lesson:** computer lab **Activating Strategies:** Questions for teacher. **Test:** Square Roots **Resource/Materials:** guided notes, worksheets, logins	**Mini Lesson:** 24 **Activating Strategies:** Anticipation Guide **Lesson:** Operations with Polynomials 1. Quiz: Weekly Review 2. Adding Polynomials 3. Subtracting Polynomials 4. Assignment – Classwork **Resource/Materials:** quizzes, guided notes, worksheets
Differentiation: *Content/Process/Product:* guided notes, guided practice *Grouping Strategy:* *Assessment:*	**Differentiation:** *Content/Process/Product:* USATestPrep,guided practice *Grouping Strategy:* *Assessment:*	**Differentiation:** *Content/Process/Product:* guided practice *Grouping Strategy:* Partners *Assessment:* Radical Quizzes	**Differentiation:** *Content/Process/Product:* guided notes, USATestPrep, guided practice *Grouping Strategy:* *Assessment:*	**Differentiation:** *Content/Process/Product:* guided practice *Grouping Strategy:* *Assessment:*
Assessment : *Formative:* thumbs up/down *Summative:*	**Assessment :** *Formative:* thumbs up/down *Summative:*	**Assessment :** *Formative:* thumbs up/down *Summative:*	**Assessment :** *Formative:* *Summative:* **Test**	**Assessment :** *Formative:* quiz, thumbs up/down *Summative:*
Homework: worksheets (10-4)	**Homework:** none	**Homework:** review worksheets	**Homework:** none	**Homework:** none

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- **Algebra**. The branch of mathematics that deals with relationships between numbers, utilizing letters and other symbols to represent specific sets of numbers, or to describe a pattern of relationships between numbers.

- **Arithmetic Sequence**. A sequence of numbers in which the difference between any two consecutive terms is the same.

- **Average Rate of Change**. The change in the value of a quantity by the elapsed time. For a function, this is the change in the y-value divided by the change in the x-value for two distinct points on the graph.

- **Coefficient**. A number multiplied by a variable in an algebraic expression.

- **Constant Rate of Change**. With respect to the variable x of a linear function y = f(x), the constant rate of change is the slope of its graph.

- **Continuous**. Describes a connected set of numbers, such as an interval.

- **Discrete**. A set with elements that are disconnected.

- **Domain**. The set of x-coordinates of the set of points on a graph; the set of x-coordinates of a given set of ordered pairs. The value that is the input in a function or relation.

- **End Behaviors**. The appearance of a graph as it is followed farther and farther in either direction.

- **Equation**. A number sentence that contains an equals symbol.

- **Explicit Formula**. A formula that allows direct computation of any term for a sequence $a_1, a_2, a_3, \ldots, a_n, \ldots$.

- **Expression**. Any mathematical calculation or formula combining numbers and/or variables using sums, differences, products, quotients including fractions, exponents, roots, logarithms, functions, or other mathematical operations.

- **Factor**. For any number x, the numbers that can be evenly divided into x are called factors of x. For example, the number 20 has the factors 1, 2, 4, 5, 10, and 20.

- **Inequality**. Any mathematical sentence that contains the symbols > (greater than), < (less than), ≤ (less than or equal to), or ≥ (greater than or equal to).

- **Interval Notation**. A notation representing an interval as a pair of numbers. The numbers are the endpoints of the interval. Parentheses and/or brackets are used to show whether the endpoints are excluded or included.

- **Linear Function**. A function with a constant rate of change and a straight line graph.

- **Linear Model**. A linear function representing real-world phenomena. The model also represents patterns found in graphs and/or data.

- **Ordered Pair**. A pair of numbers, (x, y), that indicate the position of a point on a Cartesian plane.

- **Parameter**. The independent variable or variables in a system of equations with more than one dependent variable.

- **Range**. The set of all possible outputs of a function.

- **Recursive Formula**. A formula that requires the computation of all previous terms to find the value of an.

- **Slope**. The ratio of the vertical and horizontal changes between two points on a surface or a line.

- **Substitution**. To replace one element of a mathematical equation or expression with another.

- **Term**. A value in a sequence--the first value in a sequence is the 1st term, the second value is the 2nd term, and so on; a term is also any of the monomials that make up a polynomial.

- **Variable**. A letter or symbol used to represent a number.

- **X-intercept**. The point where a line meets or crosses the x-axis

- **Y-intercept**. The point where a line meets or crosses the y-axis