

2014-2015 Algebra 1 & 2 Basic Goals and Prerequisite Skills

Main Topic: Numerical Relationships (remember you must be able to <u>APPLY</u> each of these skills in real world situations)	
Algebra 1 Skills for Review	Best description of your goal mastery?
Without a calculator, I... Know my basic facts (0's – 10's) and can add, subtract, multiply & divide integers (positives and negatives), graph them and write them in increasing or decreasing order	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
Without a calculator, I can... Add, subtract, multiply & divide fractions, decimals and percents and convert between them, graph them and write them in increasing or decreasing order	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
Without a calculator, I can... Simplify square roots and put them in simplest radical form	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I understand and can use... Factors, multiples, LCM & GCF	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I can... Write, solve and work with ratios and proportions	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I understand and can use the order of operations (including the distributive property)	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I can translate between algebraic expressions and verbal models	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I can solve single and multiple step linear equations <ul style="list-style-type: none"> • with integers, fractions or decimals) • apply them (word problems) • when variables are on both sides of equal sign 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I understand and can organize and use data in tables or a graph using... <ul style="list-style-type: none"> • Coordinate Plane • Bar, circle & line Graphs 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this

Main Topic: Linear Relationships (remember you must be able to APPLY each of these skills in real world situations)

Algebra 1 Skills for Review	Best description of your goal mastery?
<p>I can solve single and multiple step linear equations</p> <ul style="list-style-type: none"> with integers, fractions or decimals) apply them (word problems) when variables are on both sides of equal sign 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I understand and can organize and use data in tables or a graph using...</p> <ul style="list-style-type: none"> Coordinate Plane Bar, circle & line Graphs 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I can graph a linear equation if I am given</p> <ul style="list-style-type: none"> Two points A table of values A point & the slope Slope-intercept form x-intercept & y-intercept 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I can write the equation of a line given</p> <ul style="list-style-type: none"> Graph of the line Two points A table of values A point & the slope x-intercept & y-intercept that it is horizontal or vertical and a point on it 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I understand, can find, use/interpret a line's slope given</p> <ul style="list-style-type: none"> Graph of line Table of values Two points on line 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I understand functions including...</p> <ul style="list-style-type: none"> Function notation What defines a function How to evaluate a function for a given value 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I know and can choose and use the most appropriate form of a linear equation...</p> <ul style="list-style-type: none"> Slope-intercept Standard Point-Slope 	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I understand and can use slopes to determine the relationship between lines as parallel, perpendicular or neither.</p>	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I understand, can write, solve and graph linear inequalities in one variable including simple, multiple-step and compound</p>	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
<p>I understand systems of linear equations and can solve them (by any method) and can choose the best solution method...</p> <ul style="list-style-type: none"> Graphing Combination/elimination Substitution <p>I can interpret the results in context of the problem and its graph</p>	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this

Main Topic: Quadratic Relationships (remember you must be able to APPLY each of these skills in real world situations)		
Algebra 1 Skills for Review	Review Problems (choose the review problems most appropriate for you)	Best description of your goal mastery?
I can sketch the graph of a quadratic function and identify and interpret its important features including... <ul style="list-style-type: none"> • Vertex & axis of symmetry • Width • Intercepts (both x & y) 	p. 945, #1-7 p. 249-255 (section 5.1)	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I can find the solution(s) of a quadratic equation using any method... <ul style="list-style-type: none"> • Finding square roots • Graph • Quadratic formula 	p. 264-270 (section 5.3)	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I know, can use and interpret the results from using the quadratic formula and can also use the discriminant to determine the number and type of solutions	p.291-298 (section 5.6)	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I can factor a quadratic (any leading coefficient) using <ul style="list-style-type: none"> • GCF • Special patterns • Your favorite method for Generic Quadratics (guess & check, 9-box, AC/British, other?) and use the factors to solve the quadratic	p. 938, #1-30 p. 945, #10-29 p. 256-263 (section 5.2)	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this
I can add, subtract, multiply and simplify simple polynomials	p.936-937, #1-28 p. 937, #1-21 p. 940, #19-24	<input type="checkbox"/> I have 80%+ mastery of this without review <input type="checkbox"/> I have 80%+ mastery of this after review <input type="checkbox"/> I have 50-79% mastery of this after review <input type="checkbox"/> I have 0-50% mastery of this after review <input type="checkbox"/> I've seen this but have no idea how to do it <input type="checkbox"/> I have never seen this

Extra Online Resources:

1.) Algebra 2, <http://glencoe.mheducation.com/sites/0078778565/sitemap.html?resource=extraexamples>

2.) Algebra 1,

http://www.glencoe.com/sec/math/algebra/algebra1/algebra1_05/extra_examples/index.php4/na

Mr. Hickman 2014-2015 General Syllabus and Rules

Classroom Rules

- Ask questions
- Practice mathematics daily
- Support mathematics with proper justification
- Participate in the process of learning mathematics
- Be cooperative in the learning process
- Learn from mistakes through correction process
- Be prepared to learn with appropriate tools and required materials daily
- Seek help appropriately
- Be on time & timely in completion of makeup work
- All class materials will be returned before the end of class

Classroom Procedures

- Students will participate in daily classroom activities.
- Students will cooperate with all classmates and teacher in the learning process.
- Students will maintain and bring a notebook of examples and notes daily
- Students will correct mistakes with or without solution guides

Daily Practice of Mathematics

- Students are expected practice and show evidence of practice DAILY
- Students will use a variety methods to demonstrate evidence of daily practice
 - a. ICE breakers
 - b. Quick poll
 - c. Informal assessment
 - d. Graphic Organizer
 - e. Group Challenge
- Students are expected to check odd- numbered answers with text prior to next day's discussion

Office Hours

Mr. Hickman will be available after-school most days for additional assistance during GP 1, GP 2, most of GP 3.

Mr. Hickman will be available before school by appointment and require a pass from Mr. Hickman

GP 4 assistance will be given before school

Required Materials

- Mathematics Text (students will be informed if text is required for daily classroom use)
- Pencil and paper
- Any handouts from Mr. Hickman
- Mathematics ONLY 3-Ring Binder
- Scientific calculator with two line display
- RHS Student Planner

Students that arrive to class without materials and ask to return to locker to get materials are subject to a tardy/conference/referral

Technology Procedures

- Students will support mathematics using a wide variety of technology.
- Learn how to use technology to support mathematics dynamically
- Learn how to use technology to support mathematical growth and comprehension checks

OFF and OUT of SIGHT Policy

- School policy is that earbuds, laptops, tablets, and cell phones are to be off and out of sight from 7:30am to 2:30 pm
- Students that have these devices in class are subject to electronics discipline referrals.
- Methods of concealing/hiding electronic devices for use during class will not be tolerated. (book barricade, open purses/bags on desktop, etc., hoodies with built in earphones, etc.)
- **Charging of electronic devices will NOT be allowed**
- **Choice of attire and size of cellphone or other electronic devices does not allow student to violate OFF and OUT of sight policy**

. Email Address

shad.hickman@psd150.org

Web Page

www.psd150.org//Domain/496

Mr. Hickman will post materials for class on the Richwoods High School Website under Staff Tab.

Grade Distribution:

15% hwk/in class work 10% Participation
25% Quiz 50% Test