## Academic Algebra 2 Pre-Course Work

Summer 2013 - Instructor Ms. Groves - Room 103

## Prior to Class on June 20 ${ }^{\text {th }}$

- Complete the registration information, get a $\$ 350$ check made out to BHS and bring to the main office Mrs. Alexander.
- Sign out a book. Lost book will cost $\$ 50$.
- Email me at pgroves@brunswick.k12.me.us when you have registered and let me know any dates that you know you will miss class so I can get you assignments prior to your absence so you do not fall behind.
- Pick up Pre-Course work and Syllabus.
- Study Chapters 1 and 2 on your own. There will be a test the first or day of class. If you need help, see me any afternoon on final exam days.
- Do Pre-Course assignment (this will be 2 graded HW assignments):

1. HW\#1: Complete the vocabulary questions. Below is critical vocabulary you are expected to know. I have selected 10 for you to define. Your answers must be typed.
2. HW\#2: Complete the Chapter $1 \& 2$ review packet. Show work clearly. Check your answers. I have posted answers on my website http://www.brunswick.k12.me.us/pgroves/

- I recommend doing work in pencil but if you choose to use pen then only blue or black ink will be accepted.


## Chapter 1 Vocabulary Questions:

1) Clearly describe the differences between whole numbers, integers, rational and irrational numbers and give examples.

* Understand the following addition and multiplication properties and be able to recognize examples of each: commutative, associative, identity, inverse, and distributive.

2) Clearly explain the difference between opposite and reciprocal.
3) Clearly explain how power, exponent, base, and factors relate (an example showing these terms is acceptable). Use " 5 cubed" as an example to identify power, exponent, base, and factors; explain the difference between writing this expression using exponents and evaluating.
4) Clearly explain the difference between variables, coefficients, factors, terms, like terms, and constant terms.
5) Clearly explain the difference between solving and evaluating.
6) What are the 2 major differences between solving equations and solving inequalities?

* Understand the difference between "and" inequalities, "or" inequalities, $|\mathrm{ax}+\mathrm{b}|=\mathrm{c},|\mathrm{ax}+\mathrm{b}|<\mathrm{c}$, and $|\mathrm{ax}+\mathrm{b}|>\mathrm{c}$. Know how to graph each solution.


## Chapter 2 Vocabulary Questions:

7) Clearly describe the differences between relation, function, domain, range, independent variable, dependent variable, and $\mathrm{f}(\mathrm{x})$.
8) Clearly describe the differences between these slopes: positive slope, negative slope, zero slope, undefined slope, slopes of parallel lines, and slopes of perpendicular lines.
9) Explain the difference between horizontal and vertical line by giving their equations and slopes.
10) State the 3 forms to write linear equations: slope-intercept, point-slope, \& standard form.

* Understand how to graph lines given the following information.
a. slope and $y$-intercept
b. standard form (hint x\&y intercepts)
c. given a point and slope
d. given two points
* Understand how to graph inequalities. When to have a dotted versus a solid line. How to determine which side to shade.

