

Academic Algebra 2 Pre-Course Work

SUMMER 2013 – INSTRUCTOR MS. GROVES – ROOM 103

Prior to Class on June 20th

- 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, $|ax+b|=c$, $|ax+b|<c$, and $|ax+b|>c$. 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 $f(x)$.
- 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.