**Algebra1 Test Study Notes**

**Unit 8,9a – Monomials, Polynomials**

Monomial Exponents

* Anything raised to the zero power is equal to one
* Negative exponents are reciprocals
* All simplified answers remove parenthesis and have only positive exponents

Multiplication properties of Exponents

* Multiplying powers with the same bases is adding the powers
* Only add exponent for like bases
* A power raised to a power (parenthesis) is multiplied
* If there are more than one term inside a parenthesis, raise all of them to the power
* Make sure to raise the power on everything inside the parenthesis, even a constant

Division properties of Exponents

* Terms with same bases in fractions, subtract the bottom exponent from the top
* Negative exponents are changed and moved to other side of fraction bar
* Parenthesis powers are applied to all terms inside a parenthesis, even constants

Adding and Subtracting Polynomials

* A polynomial is the addition or subtraction of monomials
* Combine like terms, like terms have same exponents on all variables
* Subtraction – make sure that all terms are subtracted, that is distribute the minus sign

Multiplying and Factoring

* Distribute every term outside a parenthesis to all terms inside
* Be careful to manipulate the exponents correctly when distributing terms
* Find a Greatest Common Factor (GCF) of multiple terms
* Factor a GCF out of multiple terms, this is the reverse of distributing a term

Multiplying Binomials

* Two binomials are multiplied with FOIL – First, Outside, Inside Last
* When foiling, be careful to combine like terms as appropriate
* Always write a final answer in descending “standard” form
* If one term is a trinomial or more, use vertical multiplication
* Line up like terms and add for final answer

This is a ten question, 100 point test.