## **MATH 101**

For a general introduction to the following topics, visit the indicated site from KHAN ACADEMY or MATH TV. (NOTE: the links branch out into further detailed subtopics and some links merge other topics as well.)

## From Khan Academy:

- number properties, exponents, algebraic expressions, arithmetic and basic problem solving <a href="http://www.khanacademy.org/math/arithmetic/#math/arithmetic">http://www.khanacademy.org/math/arithmetic/#math/arithmetic</a>
- absolute values
   http://www.khanacademy.org/math/algebra/#absolute-value
- solving linear equations and expressions
   http://www.khanacademy.org/math/algebra/#solving-linear-equations
- solving linear inequalities
   <a href="http://www.khanacademy.org/math/algebra/#solving-linear-inequalities">http://www.khanacademy.org/math/algebra/#solving-linear-inequalities</a>
- graphing linear equations (point-slope and standard from) and solving inequalities via graphing (inequalities in two variables)
   http://www.khanacademy.org/math/algebra/#linear-equations-and-inequalitie
- functions (introduction to linear, quadratic, domain, range, inverse, applying and graphing)
   <a href="http://www.khanacademy.org/math/algebra/#algebra-functions">http://www.khanacademy.org/math/algebra/#algebra-functions</a>
- system of linear equations and inequalities
   <a href="http://www.khanacademy.org/math/algebra/#systems-of-eq-and-ineq">http://www.khanacademy.org/math/algebra/#systems-of-eq-and-ineq</a>
- polynomials (arithmetic, factoring, GCF, solving)
   <a href="http://www.khanacademy.org/math/algebra/#polynomials">http://www.khanacademy.org/math/algebra/#polynomials</a>
- rational expressions, ratios, proportions, unit conversions
   <a href="http://www.khanacademy.org/math/algebra/#ratios-proportions">http://www.khanacademy.org/math/algebra/#ratios-proportions</a>
- exponents and radicals
   <a href="http://www.khanacademy.org/math/algebra/#exponents-radicals">http://www.khanacademy.org/math/algebra/#exponents-radicals</a>
- quadratic functions (factoring, solving, completing the square)
   <a href="http://www.khanacademy.org/math/algebra/#quadtratics">http://www.khanacademy.org/math/algebra/#quadtratics</a>
- complex numbers
   <a href="http://www.khanacademy.org/math/algebra/#complex-numbers">http://www.khanacademy.org/math/algebra/#complex-numbers</a>
- logarithmic functions <u>http://www.khanacademy.org/math/algebra/#logarithms</u>
- distance and midpoint formula, along with other topics mentioned above http://www.khanacademy.org/math/algebra/#ck12-algebra-1

## From MATH TV:

Go to <a href="http://www.mathtv.com/videos">http://www.mathtv.com/videos</a> by topic. On the left-hand side of the page, under "Select a Topic", click on "Algebra" to watch videos on the following topics:

- 1. Properties of Numbers
- 2. Positive and Negative Numbers
- 3. Simplifying Expressions
- 4. Linear Equations in 1 Variable
- 5. Linear Equations in 2 variables (Straight Lines)
- 6. Functions
- 7. Exponents
- 8. Polynomials
- 9. Scientific Notations
- 10. Factoring
- 11. Rational Expressions
- 12. Roots and Radicals
- 13. Quadratic Equations
- 14. Formulas
- 15. Inequalities
- 16. Word Problems
- 17. Logarithms
- 18. Systems of Equations
- 19. Graphing
- 20. Sequences and Series
- 21. Variations (Direct and Indirect Relationships)