

## Math Supplement

The following Web links are a compilation of on-line resources organized by topic.

Many of the tutorials are part of the "Interactive Mathematics" Web site (<http://www.intmath.com>) - a free, on-line system of tutorials. The system begins with basic number concepts and progresses all the way through introductory calculus. The lessons referenced here are those of most use to a student of radio electronics.

### Basic Numbers & Formulas

- Order of Operations - [http://www.intmath.com/Numbers/3\\_Order-of-operations.php](http://www.intmath.com/Numbers/3_Order-of-operations.php)
- Powers, Roots, and Radicals - [http://www.intmath.com/Numbers/4\\_Powers-roots-radicals.php](http://www.intmath.com/Numbers/4_Powers-roots-radicals.php)
- Scientific Notation - [http://www.intmath.com/Numbers/6\\_Scientific-notation.php](http://www.intmath.com/Numbers/6_Scientific-notation.php)
- Ratios and Proportions (including  $\pi$ , pi) - [http://www.intmath.com/Numbers/7\\_Ratio-proportion.php](http://www.intmath.com/Numbers/7_Ratio-proportion.php)
- Geometric Formulas - <http://www.equationsheet.com/sheets/Equations-4.html>
- Tables of Conversion Factors - [http://en.wikipedia.org/wiki/Conversion\\_of\\_units](http://en.wikipedia.org/wiki/Conversion_of_units)

### Metric System

- Metric System Overview - [http://en.wikipedia.org/wiki/Metric\\_system](http://en.wikipedia.org/wiki/Metric_system)
- Metric System Tutorial - <http://www.arrl.org/files/file/Radio%20Lab%20Handbook/Lesson%203/RLH%20Unit%203.pdf>
- Conversion of Metric & English Units
  - <http://www.m-w.com/mw/table/metricsy.htm>
  - [http://en.wikipedia.org/wiki/Metric\\_yardstick](http://en.wikipedia.org/wiki/Metric_yardstick)

### Fractions

- Equivalent Fractions - [http://www.intmath.com/Factoring-fractions/5\\_Equivalent-fractions.php](http://www.intmath.com/Factoring-fractions/5_Equivalent-fractions.php)
- Multiplication and Division - [http://www.intmath.com/Factoring-fractions/6\\_Multiplication-division-fractions.php](http://www.intmath.com/Factoring-fractions/6_Multiplication-division-fractions.php)
- Adding and Subtracting - [http://www.intmath.com/Factoring-fractions/7\\_Addition-subtraction-fractions.php](http://www.intmath.com/Factoring-fractions/7_Addition-subtraction-fractions.php)
- Equations Involving Fractions - [http://www.intmath.com/Factoring-fractions/8\\_Equations-involving-fractions.php](http://www.intmath.com/Factoring-fractions/8_Equations-involving-fractions.php)

Basic Algebra - <http://www.intmath.com/Basic-algebra/Basic-algebra-intro.php>

### Graphs

- Basic Graphs - <http://www.intmath.com/Functions-and-graphs/Functions-graphs-intro.php>
- Polar Coordinates - [http://www.intmath.com/Plane-analytic-geometry/7\\_Polar-coordinates.php](http://www.intmath.com/Plane-analytic-geometry/7_Polar-coordinates.php)

Exponents & Radicals - <http://www.intmath.com/Exponents-radicals/Exponent-radical.php>

Exponential & Logarithmic Functions - <http://www.intmath.com/Exponential-logarithmic-functions/Exponential-log-functions-intro.php>

### Decibels -

<http://www.arrl.org/files/file/Product%2520Notes/Guide%2520to%2520Antenna%2520Tuners/APPENDIX%2520A.pdf> and <http://www.ac6v.com/db.htm>

### Trigonometry

- Basic Trig Functions - <http://www.intmath.com/Trigonometric-functions/Trig-functions-intro.php>
- Graphs of Trig Functions - <http://www.intmath.com/Trigonometric-graphs/Trigo-graph-intro.php>

Complex Numbers - <http://www.intmath.com/Complex-numbers/imaginary-numbers-intro.php>