

ALGEBRA

Algebraic Expressions

- Translating phrases into algebraic expressions
 - <http://www.youtube.com/watch?v=gtFIdyOhdGA&feature=fvwl>
- Simple formulas; evaluating polynomials
 - <http://patrickjmt.com/polynomial-or-not-recognizing-polynomials-the-degree-and-some-terminology/>
- Exponent Rules
 - <http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-1/>
 - <http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-2/>
 - <http://patrickjmt.com/exponents-applying-the-rules-of-exponents-basic-ex-3/>

Polynomials

- Addition & subtraction of polynomials
 - <http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-1/>
 - <http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-2/>
 - <http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-3/>
- Multiplication & division of monomials & polynomials
 - <http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-1/>
 - <http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-2/>
 - <http://patrickjmt.com/polynomials-adding-subtracting-multiplying-and-simplifying-ex-3/>
- Multiplying a polynomial by a monomial
 - <http://www.youtube.com/watch?v=0-Y2vGFjfc4>
- FOIL method
 - <http://patrickjmt.com/solving-quadratic-equations-by-factoring-basic-examples/>
 - <http://www.yourteacher.com/free-video-jwp.php?vid=7070>
 - <http://www.youtube.com/watch?v=65BAsV0SK3k&feature=relmfu>
- Special products

Positive rational roots & exponents

- <http://patrickjmt.com/radical-notation-and-simplifying-radicals/>
- <http://patrickjmt.com/rewriting-radicals-using-complex-numbers/>
- <http://patrickjmt.com/radicals-simplifying-radical-expressions-involving-variables-ex-1/>
- <http://patrickjmt.com/solving-an-equation-containing-two-radicals-ex-1/>
- <http://patrickjmt.com/finding-domains-of-functions-involving-radicals-square-roots-to-be-more-precise-example-1/>
- Evaluating Radicals
- All operations with radicals
- Solving radical equations

Rational expressions

- <http://patrickjmt.com/rational-expressions-adding-and-subtracting/>
- <http://patrickjmt.com/rational-expressions-and-domain/>
- <http://patrickjmt.com/rational-expressions-writing-in-lowest-terms-ex-1/>
- <http://patrickjmt.com/rational-expressions-multiplying-and-dividing-ex-1/>
- <http://patrickjmt.com/rational-expressions-adding-and-subtracting-ex-1/>
- Simplifying algebraic fractions
- Solving equations involving rational expressions
- Applications involving rational numbers

Factoring

- <http://patrickjmt.com/derivatives-product-chain-rule-factoring/>
- Factoring trinomials
 - <http://www.youtube.com/user/yourteachermathhelp#p/search/1/Nj9GgAM-dTQ>
- Special factorizations: squares & cubes
 - http://www.youtube.com/user/yourteachermathhelp#p/search/5/AcCN_isD3PY
 - <http://www.youtube.com/watch?v=COCIk0irzI4&feature=related>

Equations

- Linear equations
 - <http://patrickjmt.com/solving-linear-equations/>
 - <http://patrickjmt.com/an-intro-to-solving-linear-equations-what-does-it-mean-to-be-a-solution/>
 - <http://patrickjmt.com/an-intro-to-solving-linear-equations-solving-some-basic-linear-equations/>
- Equation of a line
 - <http://patrickjmt.com/find-the-equation-of-a-line-using-point-slope-form/>
- Solving systems of linear equations by graphing, substitution, and elimination
 - <http://patrickjmt.com/find-the-equation-of-a-line-using-point-slope-form/>
- Quadratic Equations by factoring
 - <http://patrickjmt.com/solving-quadratic-equations-by-factoring-basic-examples/>
 - <http://patrickjmt.com/solving-quadratic-equations-by-factoring-another-example/>
- Verbal problems in algebraic context
- Geometric reasoning & graphing
- Cartesian Coordinate System
 - <http://patrickjmt.com/the-cartesian-coordinate-system-a-few-basic-questions/>
- Plotting points
 - <http://patrickjmt.com/graphing-equations-by-plotting-points-example-1/>
 - <http://patrickjmt.com/graphing-equations-by-plotting-points-example-2/>
 - <http://patrickjmt.com/graphing-equations-by-plotting-points-example-3/>
- Graphing linear equations
 - <http://patrickjmt.com/solving-a-linear-system-of-equations-by-graphing/>

Problem solving with algebraic expressions

- Evaluating algebraic expressions
- Translating phrases into algebraic expressions

Inequalities

- Graphing linear inequalities
 - <http://patrickjmt.com/graphing-systems-of-linear-inequalities-example-1/>
 - <http://patrickjmt.com/graphing-systems-of-linear-inequalities-example-2/>
- Solving linear inequalities
 - <http://patrickjmt.com/solving-linear-inequalities/>
 - <http://patrickjmt.com/solving-linear-absolute-value-equations-and-inequalities/>
 - <http://patrickjmt.com/solving-linear-compound-inequalities-ex-1/>
 - <http://patrickjmt.com/solving-linear-compound-inequalities-ex-2/>
 - <http://patrickjmt.com/solving-linear-compound-inequalities-ex-3/>

ARITHMETIC

Whole Number

- Numeration
- All operations
 - http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/Y3CZ_JBQ0do
- Estimation
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/qr-xHNNrZeA>
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/1/7ZUOLxpTn44>
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/2/Qn8TuzrEeRo>

Fractions

- Prime and Composite Numbers
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/Q8ehxzOBzQU>
- Prime factors, GCF, LCM
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/qGkK8xkWs6U>
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/guMCJ792UF0>
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/lAwq8hnVxY8>
- Equivalent Fractions
 - http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/Xmxs2wd_JDI
- Mixed numbers & Improper Fractions
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/IByEp5brtw4>
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/1/juZUcOWhX1A>
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/2/sTGeck8KyhY>
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/4/eN4gqykQ6L8>
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/5/sIPGOzyTpbY>
- All Operations
 - http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/Y3CZ_JBQ0do
- Distribution into fractional parts
 - <http://patrickjmt.com/the-binomial-distribution-binomial-probability-function/>

Decimals

- All Operations
 - http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/Y3CZ_JBQ0do
- Decimal, fraction, percent equivalents
 - <http://www.youtube.com/watch?v=m1CXJCyHOMo>

Percents

- Percent as fractions and decimals
 - <http://www.youtube.com/watch?v=04eEAxkc4bk>
- Rate, percent, proportion problems
- Simple geometry
 - <http://www.youtube.com/watch?v=DrNns2fsRKw&feature=relmfu>
 - <http://www.youtube.com/watch?v=851Xn070sao&feature=relmfu>
 - <http://www.youtube.com/watch?v=DB3cHPvfrvw&feature=relmfu>

Integers

- Graph on number line
 - <http://www.youtube.com/watch?v=G6eTMRXHhmE>
- All operations on signed numbers

Rational Numbers

- Positive and negative
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/T7J-2Kt9WNs>
- Absolute value
 - http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/1/_9NGZH-uTWE
 - <http://www.youtube.com/user/yourteachermathhelp?blend=1&ob=5#p/search/0/NxbLXwXXp7Y>
 - <http://patrickjmt.com/absolute-value-and-evaluating-numbers/>