

IKM-Manning Curriculum
Mathematics Standards / Benchmarks / Indicators
January 2008

Standards:

- The students will demonstrate understanding of number and operations
- The students will demonstrate understanding of algebra
- The students will demonstrate understanding of geometry and measurement
- The students will demonstrate understanding of data analysis and probability

Course Benchmarks:

- A2.1.1 Understand numbers, relationships among numbers, and number systems (H, V, L, C, T)
- A2.2.2 Understand patterns, relations, and functions (H, V, G, MCGF, C)
- A2.2.3 Represent and analyze mathematical situations and structures using algebraic symbols (H, V, G, L, C)
- A2.2.4 Uses a variety of methods to solve equations, inequalities, and systems of equations (H, G, MCGF, L, C, T)

Algebra II

A2.1 Numbers and Operations

- A2.1.1 Understand numbers, relationships among numbers, and number systems*
- A2.1.1.A Develop a better understanding of very small and very large numbers
- A2.1.1.B Compare and contrast numbers and number systems
- A2.1.1.C Explain all the components of the real number system
- A2.1.1.D Explain all the components of the complex number system

A2.2 Algebra

- A2.2.1 Understand patterns, relations, and functions*
- A2.2.1.A Generalize patterns using explicitly defined and recursively defined functions
- A2.2.1.B Describe symbolically, graphically, and verbally relations and functions
- A2.2.1.C Analyze functions of one variable by investigating slope, intercepts, zeros, and asymptotes
- A2.2.1.D Understand and compare the properties of classes of functions including linear, quadratic, exponential, polynomial, and rational
- A2.2.1.E Use equations to represent curves such as lines, circles, ellipses, parabolas, and hyperbolas

- A2.2.2 Represent and analyze mathematical situations and structures using algebraic symbols*
- A2.2.2.A Understand the meaning of equivalent forms of expressions, equations and relations
- A2.2.2.B Operate fluently on algebraic expressions, combining them and re-expressing them in alternative forms
- A2.2.2.C Use a variety of symbolic representations for functions and relations

A2.2.3 Uses a variety of methods to solve equations, inequalities, and systems of equations

A2.2.3.A Solve equations graphically

A2.2.3.B Solve equations symbolically

A2.2.3.C Demonstrate various procedures to solve a system of equations, including elimination, substitution, graphically, and matrices

*Coding for Infusion Topics covered in curriculum:

Higher Order Thinking Skills (H), Vocational/Career Education (V), Global Education (G), Multi-Cultural/Gender Fair (MCGF), Learning Skills (L), Communication Skills (C), Technology (T)