

Standard 1 • Algebra and Functions

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|---|---|
| IM3.1.1 Solve combined linear inequalities. | YEAR 3 <u><i>Meadows or Malls?</i></u> Strategy for Linear Programming: pp. 166-176 More Cookies: pp. 196-197 Solving “Meadows or Malls?”: pp. 250 |
| IM3.1.2 Use a graph to find the solution set of a pair of linear inequalities in two variables. | YEAR 2 <u><i>Cookies</i></u> Using the Feasible Region: pp. 326-331, 334-338 YEAR 3 <u><i>Meadows or Malls?</i></u> Strategy for Linear Programming: pp. 166-172 |
| IM3.1.3 Find a common monomial factor in a polynomial. | YEAR 3 <u><i>Fireworks</i></u> Factoring & Solving: pp. 22-24 |
| IM3.1.4 Factor the difference of two squares and other quadratics. | YEAR 3 <u><i>Fireworks</i></u> Factoring & Solving: pp. 22-26 Algebra of the Vertex: pp. 28-35 |
| IM3.1.5 Simplify algebraic ratios. | YEAR 4 <u><i>Know How</i></u> On Your Own: pp. 234-235 |
| IM3.1.6 Solve algebraic proportions. | YEAR 1 <u><i>Shadows</i></u> Triangles Galore: pp. 426-427, 435-436 Lights & Shadows: pp. 458 The Lamp & the Sun: pp. 461 YEAR 2 <u><i>Solve It!</i></u> Solving Equations & Understanding Situations: pp. 8, 16 What’s the Same?: pp. 61-66 Linear World: pp. 77-78 |
| IM3.1.7 Solve quadratic equations by factoring. | YEAR 3 <u><i>Fireworks</i></u> Algebra of the Vertex: pp. 31-34 |
| IM3.1.8 Solve quadratic equations in which a perfect | YEAR 3 |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|---|---|
| square equals a constant. | <u>Fireworks</u> Algebra of the Vertex: pp. 31-34 |
| IM3.1.9 Complete the square to solve quadratic equations. | YEAR 3 <u>Fireworks</u> Factoring & Solving: pp. 25-26 Algebra of the Vertex: pp. 30-34 |
| IM3.1.10 Derive the quadratic formula by completing the square. | YEAR 4 <u>Know How</u> On Your Own: pp. 231 |
| IM3.1.11 Solve equations that contain radical expressions. | YEAR 2 <u>Solve It!</u> Beyond Linearity: pp. 83 <u>Do Bees Build it Best?</u> Special Property of Right Triangles: pp. 233, 238-239 YEAR 3 <u>Fireworks</u> Supplemental: pp. 38-39 YEAR 4 <u>High Dive</u> Finding the Release Time: pp. 49 High Dive Concluded: pp. 92-93 |
| 0IM3.1.12 Recognize and graph various types of functions, including polynomials, rational, and algebraic functions. | YEAR 1 <u>Pit & the Pendulum</u> Graphs & Equations: pp. 369 YEAR 3 <u>Fireworks</u> World of Quadratics: pp. 4-5, 11-15 <u>Small World, Isn't It?</u> Model for Populations Growth: pp. 336-337 Best Base: pp. 348, 355 Back to the Data: pp. 357, 359-360 YEAR 4 <u>World of Functions</u> What & Why of Functions: pp. 262-264 |
| IM3.1.13 Use function notation. Add, subtract, multiply, and divide pairs of functions. | YEAR 4 <u>World of Functions</u> Back to Arithmetic: pp. 309-314 |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|--|
| IM3.1.14 Understand composition of functions and combine functions by composition. | YEAR 4 <u><i>World of Functions</i></u> Composing Functions: pp. 316-334 |
| IM3.1.15 Graph relations and functions with and without graphing technology. | YEAR 3 <u><i>Fireworks</i></u> World of Quadratics: pp. 4-5, 11-15 Factoring & Solving: pp. 19-21, 26 Algebra of the Vertex: pp. 28-29 <u><i>Orchard Hideout</i></u> Cable Complications: pp. 108-110 Lines of Sight: pp. 113-123 <u><i>Meadows or Malls?</i></u> Recreations Versus Development: A Complex Problem: pp. 163-164 Strategy for Linear Programming: pp. 166 <u><i>Small World, Isn't It?</i></u> Average Growth: pp. 289-290 All in a Row: pp. 302-303, 308-309, 311 Beyond Linearity: pp. 313-323 Best Base: pp. 348, 355 Back to the Data: pp. 357, 359 |
| IM3.1.16 Find the zeros of a function. | YEAR 3 <u><i>Fireworks</i></u> World of Quadratics: pp. 17 Factoring & Solving: pp. 19-21 |
| IM3.1.17 Solve an inequality by examining the graph. | YEAR 2 <u><i>Cookies</i></u> Picturing Cookies: pp. 312-315, 318, 323-324 Using the Feasible Region: pp. 326-328, 330-331 YEAR 3 <u><i>Meadows or Malls?</i></u> Recreations Versus Development: A Complex Problem: pp. 163-164 Strategy for Linear Programming: pp. 172 More Cookies: pp. 196-197 |
| IM3.1.18 Graph functions defined piece-wise. | YEAR 3 <u><i>Small World, Isn't It?</i></u> Beyond Linearity: pp. 324-325 YEAR 4 |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|---|---|
| | <p><u>World of Functions</u> What & Why of Functions: pp. 264 Tables: pp. 267 Supplemental: pp. 350-351</p> |
| <p>IM3.1.19 Graph absolute value equations and inequalities.</p> | <p>YEAR 3 <u>Small World, Isn't It?</u> Beyond Linearity: pp. 317-321</p> <p>YEAR 4 <u>Know How</u> Supplemental: pp. 350-351</p> |
| <p>IM3.1.20 Use substitution, elimination, and matrices to solve systems of two or three equations in two or three variables.</p> | <p>YEAR 3 <u>Meadows or Malls?</u> Saved by the Matrices!: 238-246 Solving "Meadows or Malls?": pp. 248-250</p> |
| <p>IM3.1.21 Use system of equations and inequalities to solve word problems.</p> | <p>YEAR 3 <u>Meadows or Malls?</u> Recreations Versus Development: A Complex Problem: pp. 156-160, 163-164 Strategy for Linear Programming: pp. 166-175 Equations, Points, Lines, & Planes: pp. 179-180, 186-187, 189-191 More Cookies: pp. 196-197 Equations, Equations, Equations: pp. 199-201, 203-205 Equations & More Variables in Linear Programming: pp. 208, 217-221 Saved by the Matrices!: 246 Solving "Meadows or Malls?": pp. 248-250</p> |
| <p>IM3.1.22 Define complex numbers and perform basic operations with them.</p> | <p>YEAR 3 <u>Fireworks</u> Supplemental: pp. 40-41</p> <p>YEAR 4 <u>Know How</u> On Your Own: pp. 236-239</p> |
| <p>IM3.1.23 Understand how real and complex numbers are related, including plotting complex numbers as points in the plane.</p> | <p>YEAR 3 <u>Fireworks</u> Supplemental: pp. 40-41</p> <p>YEAR 4 <u>Know How</u></p> |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|--|
| | On Your Own: pp. 236-239 |
| IM3.1.24 Solve quadratic equations in the complex number system. | YEAR 3 <u>Fireworks</u> Supplemental: pp. 40-41 YEAR 4 <u>Know How</u> On Your Own: pp. 236-239 |
| IM3.1.25 Solve word problems using quadratic equations. | YEAR 3 <u>Fireworks</u> World of Quadratics: pp. 4-5, 8 Algebra of the Vertex: pp. 31-34 |
| IM3.1.26 Solve equations that contain radical expressions. | YEAR 2 <u>Solve It!</u> Beyond Linearity: pp. 83 <u>Do Bees Build it Best?</u> Special Property of Right Triangles: pp. 233, 238-239 YEAR 3 <u>Fireworks</u> Supplemental: pp. 38-39 YEAR 4 <u>High Dive</u> Finding the Release Time: pp. 49 High Dive Concluded: pp. 92-93 |
| IM3.1.27 Solve pairs of equations, one quadratic and one linear, or both quadratic. | Not covered |
| IM3.1.28 Write the equations of conic sections (circle, ellipse, parabola, and hyperbola) and draw their graphs, using geometric properties. | YEAR 3 <u>Fireworks</u> World of Quadratics: pp. 11-15 <u>Orchard Hideout</u> Cable Complications: pp. 108-110 YEAR 4 <u>Know How</u> On Your Own: pp. 226-230 |
| IM3.1.29 Understand the relationship between conic sections and slicing a cone. | YEAR 4 <u>Know How</u> On Your Own: pp. 226-230 |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|---|
| IM3.1.30 Understand the binomial theorem and use it to expand binomial expressions raised to positive integer powers. | YEAR 3 <u><i>Pennant Fever</i></u> Combinatorial Reasoning: pp. 445-446 Pascal’s Triangle: pp. 455-457 Baseball Finale: pp. 459-464 |
| IM3.1.31 Divide polynomials by others of lower degree. | YEAR 4 <u><i>Know How</i></u> On Your Own: pp. 234-235 |
| IM3.1.32 Factor polynomials completely and solve polynomials by factoring. | YEAR 3 <u><i>Fireworks</i></u> Factoring & Solving: pp. 22-26 Algebra of the Vertex: pp. 31-34 |
| IM3.1.33 Use graphing technology to find approximate solutions for polynomial equations. | YEAR 3 <u><i>Fireworks</i></u> World of Quadratics: pp. 4-5 Factoring & Solving: pp. 19-21 |
| IM3.1.34 Use polynomial equations to solve word problems. | YEAR 3 <u><i>Fireworks</i></u> World of Quadratics: pp. 4-5, 8 Algebra of the Vertex: pp. 31-34 |
| IM3.1.35 Write a polynomial equation given its solutions. | YEAR 3 <u><i>Fireworks</i></u> Factoring & Solving: pp. 21 |
| IM3.1.36 Understand and describe the relationships among the solutions of an equation, the zeros of a function, the x-intercepts of the graph, and the factors of a polynomial expression. | YEAR 3 <u><i>Fireworks</i></u> World of Quadratics: pp. 11-12, 17 Factoring & Solving: pp. 19-21 |
| IM3.1.37 Understand and use negative and fractional exponents. | YEAR 2 <u><i>All About Alice</i></u> Extending Exponentiation: pp. 397-399 “Curiouser & Curiouser!”: pp. 401-403, 406, 409-410 YEAR 3 <u><i>Small World, Isn’t It?</i></u> Best Base: pp. 345-346 |
| IM3.1.38 Add, subtract, | YEAR 4 |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|---|
| multiply, divide, and simplify algebraic fractions. | <u><i>Know How</i></u> On Your Own: pp. 234-235 <u><i>World of Functions</i></u> Back to Arithmetic: pp. 309-314 |
| IM3.1.39 Simplify complex fractions. | YEAR 4 <u><i>Know How</i></u> On Your Own: pp. 234-235 |
| IM3.1.40 Solve equations involving algebraic fractions. | YEAR 4 <u><i>High Dive</i></u> Finding the Release Time: pp. 49 High Dive Concluded: pp. 92-93 |
| IM3.1.41 Solve word problems involving fractional equations. | YEAR 4 <u><i>High Dive</i></u> Finding the Release Time: pp. 49 High Dive Concluded: pp. 92-93 |
| IM3.1.42 Solve problems of direct, inverse, and joint variation. | YEAR 1 <u><i>Shadows</i></u> Triangles Galore: pp. 426-427, 435-436 Lights & Shadows: pp. 458 The Lamp & the Sun: pp. 461 YEAR 2 <u><i>Solve It!</i></u> Solving Equations & Understanding Situations: pp. 8, 16 What's the Same?: pp. 61-66 Linear World: pp. 77-78 |
| IM3.1.43 Prove simple laws of logarithms. | YEAR 2 <u><i>All About Alice</i></u> Turning Exponents Around: pp. 413-416 YEAR 3 <u><i>Small World, Isn't It?</i></u> Model for Populations Growth: pp. 332-333, 339-340 Supplemental: pp. 380-381 |
| IM3.1.44 Understand and use the inverse relationship between exponents and logarithms. | YEAR 2 <u><i>All About Alice</i></u> Turning Exponents Around: pp. 413-416 YEAR 3 |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|--|
| | <p><u><i>Small World, Isn't It?</i></u> Model for Populations Growth: pp. 332-333, 339-340</p> |
| <p>IM3.1.45 Solve logarithmic and exponential equations and inequalities.</p> | <p>YEAR 3 <u><i>Small World, Isn't It?</i></u> Model for Populations Growth: pp. 328-333, 335, 339-340 Best Base: pp. 345-348, 350-351, 354</p> |
| <p>IM3.1.46 Use the definition of logarithms to translate between logarithms to any base.</p> | <p>YEAR 3 <u><i>Small World, Isn't It?</i></u> Model for Populations Growth: pp. 332-333, 339-340 Supplemental: pp. 380-381</p> |
| <p>IM3.1.47 Use the properties of logarithms to simplify logarithmic expressions and to find their approximate values.</p> | <p>YEAR 2 <u><i>All About Alice</i></u> Turning Exponents Around: pp. 413-416 YEAR 3 <u><i>Small World, Isn't It?</i></u> Model for Populations Growth: pp. 332-333, 339-340 Supplemental: pp. 380-381</p> |
| <p>IM3.1.48 Use calculators to find decimal approximations of natural and common logarithmic numeric expressions.</p> | <p>YEAR 3 <u><i>Small World, Isn't It?</i></u> Model for Populations Growth: pp. 339-340 Best Base: pp. 348-349, 355 Back to the Data: pp. 359-360 Supplemental: pp. 378-379</p> |
| <p>IM3.1.49 Solve word problems involving applications of exponential functions to growth and decay.</p> | <p>YEAR 3 <u><i>Small World, Isn't It?</i></u> As the World Grows: pp. 282, 284-286 Model for Populations Growth: pp. 328-333, 335 Best Base: pp. 347-348, 350-351, 354-355 Back to the Data: pp. 359-360</p> |
| <p>IM3.1.50 Define arithmetic and geometric sequences and series.</p> | <p>YEAR 3 <u><i>Small World, Isn't It?</i></u> All in a Row: pp. 306-307 Supplemental: pp. 374-377</p> |
| <p>IM3.1.51 Find specified terms of arithmetic and geometric sequences.</p> | <p>YEAR 3 <u><i>Small World, Isn't It?</i></u> All in a Row: pp. 306-307 Model for Populations Growth: pp. 328-333, 335 Supplemental: pp. 374-377</p> |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|---|
| IM3.1.52 Find partial sums of arithmetic and geometric series. | YEAR 3 <u><i>Small World, Isn't It?</i></u> All in a Row: pp. 306-307 Supplemental: pp. 374-377 |
| IM3.1.53 Solve word problems involving applications of sequences and series. | YEAR 3 <u><i>Small World, Isn't It?</i></u> All in a Row: pp. 306-307 Supplemental: pp. 374-377 |

Standard 2 • Geometry and Measurement

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|--|
| IM3.2.1 Understand and use the relationships between special pairs of angles formed by parallel lines and transversals. | <p>YEAR 1 <u><i>Shadows</i></u> Triangles Galore: pp. 440</p> <p>YEAR 3 <u><i>Orchard Hideout</i></u> Orchards & Mini-Orchards: pp. 74 Lines of Sight: pp. 117-119</p> |
| IM3.2.2 Use coordinate geometry to find slopes, parallel lines, perpendicular lines, and equations of lines. | <p>YEAR 3 <u><i>Small World, Isn't It?</i></u> As the World Grows: pp. 285-287 Average Growth: pp. 289-290, 292-297 All in a Row: pp. 299-305, 308-310</p> |
| IM3.2.3 Use properties of congruent and similar polygons to solve problems. | <p>YEAR 3 <u><i>Orchard Hideout</i></u> Orchards & Mini-Orchards: pp. 69-71, 73-74 Equidistant Points & Lines: pp. 84 All About Circles: pp. 90-96 Cable Complications: pp. 104 Lines of Sight: pp. 117-119</p> |
| IM3.2.4 Use coordinate geometry to prove properties of polygons such as regularity, congruence, and similarity. | <p>YEAR 3 <u><i>Orchard Hideout</i></u> Orchards & Mini-Orchards: pp. 69-71, 73-74 Equidistant Points & Lines: pp. 84 All About Circles: pp. 90-96 Cable Complications: pp. 104 Lines of Sight: pp. 117-119</p> |
| IM3.2.5 Describe, classify, and understand relationships among quadrilaterals square, rectangles, rhombus, parallelogram, trapezoid, and kite. | <p>YEAR 2 <u><i>Do Bees Build it Best?</i></u> Area, Geoboards, & Trigonometry: pp. 211-212</p> |
| IM3.2.6 Use coordinate geometry to prove properties of quadrilaterals such as regularity. | <p>YEAR 3 <u><i>Orchard Hideout</i></u> Equidistant Points & Lines: pp. 83, 88</p> |
| IM3.2.7 Construct triangles congruent to given triangles. | Not covered |
| IM3.2.8 Prove and apply theorems involving segments | YEAR 1 |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|--|
| divided proportionally. | <p><u>Shadows</u> Lights & Shadows: pp. 458 The Lamp & the Sun: pp. 461</p> <p>YEAR 3</p> <p><u>Small World, Isn't It?</u> All in a Row: pp. 310</p> |
| IM3.2.9 Prove that triangles are congruent or similar and use the concept of corresponding parts of congruent triangles. | <p>YEAR 3</p> <p><u>Orchard Hideout</u> Orchards & Mini-Orchards: pp. 69-73 Equidistant Points & Lines: pp. 83-84, 88 All About Circles: pp. 94-96 Lines of Sight: pp. 117-119</p> |
| IM3.2.10 Use coordinate geometry to prove properties of triangles such as regularity, congruence, and similarity. | <p>YEAR 3</p> <p><u>Orchard Hideout</u> Orchards & Mini-Orchards: pp. 69-73 Equidistant Points & Lines: pp. 83-84, 88 All About Circles: pp. 94-96 Lines of Sight: pp. 117-119</p> |
| IM3.2.11 Find the equation of a circle in the coordinate plane in terms of its center and radius. | <p>YEAR 3</p> <p><u>Orchard Hideout</u> Cable Complications: pp. 108-111</p> |
| IM3.2.12 Describe and make regular and non-regular polyhedra. | <p>YEAR 2</p> <p><u>Do Bees Build it Best?</u> From Two Dimensions to Three: pp. 250, 253, 255-256, 258-259, 262-263</p> <p>YEAR 3</p> <p><u>Meadows or Malls?</u> More Cookies: pp. 196-197</p> |
| IM3.2.13 Describe the polyhedron that can be made from a given net (or pattern). Describe the net for a given polygon. | <p>YEAR 2</p> <p><u>Do Bees Build it Best?</u> From Two Dimensions to Three: pp. 250, 253, 258, 262 263</p> |

Standard 3 • Data Analysis and Statistics

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|--|
| <p>IM3.3.1 Understand and apply basic ideas related to the design and interpretation of surveys, such as background information, random sampling, and bias.</p> | <p>YEAR 2 <u><i>Is There Really a Difference?</i></u> Data, Data, Data: pp. 110-111, 113-115 Tool for Measuring Differences: pp. 154-156</p> <p>YEAR 4 <u><i>Pollster's Dilemma</i></u> What's a Pollster to Think?: pp. 368 Matter of Confidence: pp. 427 Putting it Together; pp. 441</p> |
| <p>IM3.3.2 Construct simulated sampling distributions of sample proportions and use sampling distributions to identify which proportions are likely to be found in a sample of a given size.</p> | <p>YEAR 4 <u><i>Pollster's Dilemma</i></u> What's a Pollster to Think?: pp. 371-376 Polls & Pennant Fever: pp. 378-383 Normal Distributions Revisited: pp. 387-399</p> |
| <p>IM3.3.3 Construct and interpret margin of error and confidence intervals for population proportions.</p> | <p>YEAR 4 <u><i>Pollster's Dilemma</i></u> Means & Standard Deviations: pp. 420-422 Matter of Confidence: pp. 424-426, 432-435 Putting it Together; pp. 437-441</p> |
| <p>IM3.3.4 Understand the standard deviation as a measure of variability in a distribution.</p> | <p>YEAR 1 <u><i>Pit & the Pendulum</i></u> Statistics & the Pendulum: pp. 328-332, 335-347, 350-351 Standard Pendulum: pp. 353-356, 360</p> <p>YEAR 4 <u><i>Pollster's Dilemma</i></u> Normal Distributions Revisited: pp. 387-393 Means & Standard Deviations: pp. 410-415</p> |

Standard 4 • Probability

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|---|--|
| IM3.4.1 Understand and apply the Addition Rule for mutually exclusive events. | YEAR 3 <u><i>Pennant Fever</i></u> Trees & Baseball: pp. 404-405 Birthday Problem: pp. 407-413 Baseball & Counting: pp. 416-417, 433-434 Baseball Finale: pp. 459, 461-462 |

Standard 5 • Discrete Mathematics

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|---|
| IM3.5.1 Use iteration and recursion as tools to represent, analyze, and solve problems involving sequential change. | YEAR 3 <u><i>Small World, Isn't It?</i></u> All in a Row: pp. 306-307 Model for Populations Growth: pp. 328-331 Best Base: pp. 351, 354 Supplemental: pp. 374-377 |
| IM3.5.2 Explore function iteration and, in the process, informally introduce function composition. | YEAR 4 <u><i>World of Functions</i></u> Composing Functions: pp. 316-325 |
| IM3.5.3 Understand and apply recursion equations, particularly combined recursion equations of the form $A_n = rA_{n-1} + b$ | Not covered |

Standard 6 • Trigonometry

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|--|
| IM3.6.1 Find the measures of sides and angles in triangles using the Law of Sines. | YEAR 4 <u><i>Know How</i></u> On Your Own: pp. 223-225 |
| IM3.6.2 Find the measures of sides and angles in triangles using the Law of Cosines. | Not covered |
| IM3.6.3 Compare and contrast families of trigonometric functions. | YEAR 4 <u><i>High Dive</i></u> Trigonometric Interlude: pp. 62-65 Supplemental: pp. 108 <u><i>As the Cube Turns</i></u> Rotating in Two Dimensions: pp. 148-149 <u><i>An Animated POW: pp. 191-194</i></u> <u><i>World of Functions</i></u> What & Why of Functions: pp. 263-264 Who's Who?: pp. 295 |

Standard 7 • Mathematical Reasoning and Problem Solving

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--|---|
| <p>IM3.7.1 Understand that the logic of equation solving begins with the assumption that the variable is a number that satisfies the equation, and that the steps taken when solving equations create new equations that have, in most cases, the same solution set as the original. Understand that similar logic applies to solving systems of equations simultaneously.</p> | <p>YEAR 3</p> <p><u><i>Fireworks</i></u> Algebra of the Vertex: pp. 31-33 Supplemental: pp. 38-39</p> <p><u><i>Orchard Hideout</i></u> Cable Complications: pp. 111</p> <p><u><i>Meadows or Malls?</i></u> Strategy for Linear Programming: pp. 166, 169-177 Equations, Equations, Equations: pp. 202-206 Equations & More Variables in Linear Programming: pp. 211-212, 217-221 Solving “Meadows or Malls?”: pp. 248-250</p> <p><u><i>Small World, Isn’t It?</i></u> Average Growth: pp. 291 Model for Populations Growth: pp. 335</p> |
| <p>IM3.7.2 Decide whether a given algebraic statement is true always, sometimes, or never (statements involving linear or quadratic expressions, equations, inequalities).</p> | <p>YEAR 3</p> <p><u><i>Meadows or Malls?</i></u> Strategy for Linear Programming: pp. 173-176 Equations, Points, Lines, & Planes: pp. 188 More Cookies: pp. 196-197 Solving “Meadows or Malls?”: pp. 248-249</p> |
| <p>IM3.7.3 Distinguish between inductive and deductive reasoning, identifying, and providing examples of each.</p> | <p>YEAR 2</p> <p><u><i>All About Alice</i></u> Who’s Alice?: pp. 382-383 Extending Exponentiation: pp. 397-399 “Curiouser & Curiouser!”: pp. 401-403, 404-405</p> <p>YEAR 3</p> <p><u><i>Orchard Hideout</i></u> Orchards & Mini-Orchards: pp. 72 Equidistant Points & Lines: pp. 83-88 Cable Complications: pp. 106-107</p> <p><u><i>Small World, Isn’t It?</i></u> All in a Row: pp. 306-307</p> |
| <p>IM3.7.4 Identify the hypothesis and conclusion in a logical deduction.</p> | <p>YEAR 2</p> <p><u><i>All About Alice</i></u> Who’s Alice?: pp. 382-383 “Curiouser & Curiouser!”: pp. 404-405</p> <p>YEAR 3</p> |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|---|---|
| | <p><u><i>Orchard Hideout</i></u> Orchards & Mini-Orchards: pp. 72 Equidistant Points & Lines: pp. 83-88</p> |
| IM3.7.5 Use counterexamples to show that statements are false, recognizing that a single counterexample is sufficient to prove a general statement false. | <p>YEAR 3 <u><i>Orchard Hideout</i></u> Equidistant Points & Lines: pp. 86-87 <u><i>Meadows or Malls?</i></u> Equations & More Variables in Linear Programming: pp. 213-215</p> |
| IM3.7.6 Use properties of number systems and the order of operations to justify the steps of simplifying functions and solving equations. | <p>YEAR 3 <u><i>Fireworks</i></u> World of Quadratics: pp. 17 Factoring & Solving: pp. 19-21 <u><i>Meadows or Malls?</i></u> Equations, Equations, Equations: pp. 199-206 Saved by the Matrices!: 238-244 <u><i>Small World, Isn't It?</i></u> Model for Populations Growth: pp. 332-333, 335</p> |
| IM3.7.7 Identify and give examples of undefined terms, axioms, and theorems, and inductive and deductive proof. | <p>YEAR 2 <u><i>All About Alice</i></u> Who's Alice?: pp. 382-383 "Curiouser & Curiouser!": pp. 401-403</p> <p>YEAR 3 <u><i>Orchard Hideout</i></u> Orchards & Mini-Orchards: pp. 72 Equidistant Points & Lines: pp. 83-88 Cable Complications: pp. 106-107 <u><i>Small World, Isn't It?</i></u> All in a Row: pp. 306-307</p> |
| IM3.7.8 Construct logical arguments, judge their validity, and give counterexamples to disprove statements. | <p>YEAR 3 <u><i>Orchard Hideout</i></u> Orchards & Mini-Orchards: pp. 69-73 Equidistant Points & Lines: pp. 83-88 All About Circles: pp. 90-96 Lines of Sight: pp. 113-114, 117-119 <u><i>Meadows or Malls?</i></u> Equations, Equations, Equations: pp. 199-202 Equations & More Variables in Linear Programming: pp. 213-215 Solving "Meadows or Malls?": pp. 248-249</p> |

| Expectations | <i>Interactive Mathematics Program, Year 3</i> |
|--------------|--|
| | <p data-bbox="753 264 1065 300"><u><i>Small World, Isn't It?</i></u></p> <p data-bbox="786 306 1203 342">All in a Row: pp. 304-305, 310</p> <p data-bbox="786 342 1268 378">Beyond Linearity: pp. 313-315, 321</p> <p data-bbox="786 378 1036 413">Best Base: pp. 348</p> <p data-bbox="786 413 1192 449">Back to the Data: pp. 359-360</p> <p data-bbox="753 455 959 491"><u><i>Pennant Fever</i></u></p> <p data-bbox="786 497 1214 533">Birthday Problem: pp. 407-408</p> <p data-bbox="786 533 1386 569">Combinatorial Reasoning: pp. 444, 447-448</p> |