

**Go Figure!**  
**Solving algebraic equations:**  
**Correlation to the National Council of Teachers of Mathematics' *Principles and Standards for School Mathematics* Standards for Grades 9-12**

The following data describe the pages of the skill book *Go Figure!* that address the National Council of Teachers of Mathematics' *Principles and Standards for School Mathematics* Number and Operations and Algebra Standards for students in grades 9-12 and the Representation Standard for students in all grades. Analysis data show the page number of the skill book that correlates with each standard.

| <b><i>Principles and Standards for School Mathematics</i><br/>Algebra Standard</b>  | <b>Analysis Data</b>                                 |
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| <b>Instructional programs should enable all students to understand patterns, relations, and functions. In grades 9 through 12 all students should:</b>  |  |
| Understand relations and functions and select, convert flexibly among, and use various representations for them.  | Pages 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15    |
| Analyze functions of one variable by investigating rates of change, intercepts, zeros, asymptotes, and local and global behavior.   | Pages 3, 11, 12, 13, 15                              |
| Interpret representations of functions of two variables.  | Pages 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15       |
| <b>Instructional programs should enable all students to represent and analyze mathematical situations and structures using algebraic symbols. In grades 9 through 12 all students should:</b> |  |
| Understand the meaning of equivalent forms of expressions, equations, inequalities, and relations.  | Pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 |
| Write equivalent forms of equations, inequalities, and systems of equations and solve them with fluency—mentally or with paper and pencil in simple cases and using technology in all cases.  | Pages 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15       |
| Use symbolic algebra to represent and explain mathematical relationships.   | Pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15       |
| Judge the meaning, utility, and reasonableness of the results of symbol manipulations, including those carried out by technology.   | Pages 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15    |

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| <b><i>Principles and Standards for School Mathematics</i></b><br><b>Representation Standard</b> | <b>Analysis Data</b> |
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| <b>Instructional programs should enable all students to:</b>                            |   |
| Create and use representations to organize, record, and communicate mathematical ideas. | Pages 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 |

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| <b><i>Principles and Standards for School Mathematics</i></b><br><b>Number and Operations Standard</b> | <b>Analysis Data</b> |
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| <b>Instructional programs should enable all students to understand numbers, ways of representing numbers, relationships among numbers, and number systems. In grades 9 through 12 all students should:</b>      |  |
| Compare and contrast the properties of numbers and number systems, including the rational and real numbers, and understand complex numbers as solutions to quadratic equations that do not have real solutions. | Pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 |
| <b>Instructional programs should enable all students to understand meanings of operations and how they relate to one another. In grades 9 through 12 all students should:</b>                                   |  |
| Judge the effects of such operations as multiplication, division, and computing powers and roots on the magnitudes of quantities.   | Pages 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15    |
| <b>Instructional programs should enable all students to compute fluently and make reasonable estimates. In grades 9 through 12 all students should:</b>   |  |
| Develop fluency in operations with real numbers, vectors, and matrices, using mental computation or paper-and-pencil calculations for simple cases and technology for more-complicated cases.                   | Pages 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15    |