

Standard: Number, Number Sense and Operations
10 D2. Explain the meaning of the <i>n</i> th root.
10 I4. Approximate the <i>n</i> th root of a given number greater than zero between consecutive integers when <i>n</i> is an integer; e.g., the 4th root of 50 is between 2 and 3.
12 E1. Determine what properties (closure, identity, inverse, commutative and associative) hold for operations with complex numbers.

Standard: Patterns, Functions and Algebra
10 B2. Describe and compare characteristics of the following families of functions; square root, cubic, absolute value and basic trigonometric functions; e.g., general shape, possible number of roots, domain and range.
10 F,G10. Solve real-world problems that can be modeled using linear, quadratic, exponential or square root functions.
11 A3. Describe and compare the characteristics of the following families of functions; quadratics with complex roots, polynomials of any degree, logarithms, and rational functions; e.g., general shape, number of roots, domain and range, asymptotic behavior.
11 A11. Describe how a change in the value of a constant in an exponential, logarithmic or radical equation affects the graph of the equation.
11 B8. Solve equations involving radical expressions and complex roots.
11 D9. Solve 3 by 3 systems of linear equations by elimination and using technology, and interpret graphically what the solution means (a point, line, plane, or not solution).

Standard: Data Analysis & Probability
11 A4. Create a scatter plot of bivariate data, identify trends, and find a function to model the data.
11 A5. Use technology to find the Least Squares Regression Line, the regression coefficient, and the correlation coefficient for bivariate data with a linear trend, and interpret each of these statistics in the context of the problem situation.
11 A7. Describe the standard normal curve and its general properties, and answer questions dealing with data assumed to be normal.
11 A8. Analyze and interpret univariate and bivariate data to identify patterns, note trends, draw conclusions, and make predictions.
11 A10. Understand and use the concept of random variable, and compute and interpret the expected value for a random variable in simple cases.
11 B3. Describe how a linear transformation of univariate data affects range, mean, mode and median.
11 B5. Use technology to find the Least Squares Regression Line, the regression coefficient, and the correlation coefficient for bivariate data with a linear trend, and interpret each of these statistics in the context of the problem situation.
11 B6. Use technology to compute the standard deviation for a set of data, and interpret standard deviation in relation to the context or problem situation.
11 B8. Analyze and interpret univariate and bivariate data to identify patterns, note trends, draw conclusions, and make predictions.