Power Indicators
Grade 11 - Math

Number, Number Sense and Operations

11.1.4 Use matrices to represent given information in a problem situation.
11.1.7 Compute sums, differences, products and quotients of complex numbers.
11.1.8 Use fractional and negative exponents as optional ways of representing and finding solutions for problem situations.
11.19 Use vector addition and scalar multiplication to solve problems.

Measurement

11.2.2 Calculate relative error.
11.2.3 Derive a formula for the surface area of a cone as a function of its slant height and the circumference of the base.
11.2.4 Calculate distances, areas, surface areas and volumes of composite three-dimensional objects to a specified number of significant digits.

Geometry

11.3.1 Use polar coordinates to specify locations on a plane.
11.3.4 Use trigonometric relationships to determine lengths and angle measures; I.e., Law so Sines and Law of Cosines.
11.3.5 Identify, sketch and classify the cross sections of three-dimensional objects.

Patterns, Functions and Algebra

11.4.1 Identify and describe problem situations involving an iterative process that can be represented as a recursive function; e.g., compound interest.
11.4.3 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.
11.4.4 Identify the maximum and minimum points of polynomials, rational and trigonometric functions graphically and with technology.
11.4.5 Identify families of functions with graphs that have rotation symmetry or reflection symmetry about the y-axis, x-axis, or y=x.
11.4.7 Model and solve problems with matrices and vectors.
11.4.8 Solve equations involving radical expressions and complex roots.

Data Analysis and Probability

11.5.1 Design a statistical experiment, survey or study for a problem; collect data for the problem; and interpret the data with appropriate graphical displays, descriptive statistics, concepts of variability, causation, correlation and standard deviation.
11.5.4 Create a scatterplot of bivariate data, identify trends, and find a function to model the data.
11.5.6 Use technology to compute the standard deviation for a set of data, and interpret standard deviation in relation to the context or problem situation.
11.5.10 Undestand and use the concept of random variable, and compute and interpret the expected value for a random variable in simple cases.