ISTEP+: Grade 10 Mathematics
Blueprint Beginning Spring 2016

The grade 10 mathematics assessment is divided into seven categories for reporting student achievement. Age-appropriate concepts are assessed within each category.

Reporting Category	Description	Percent Range *
Number Sense, Expressions, and Computation	Questions may include understanding rational and irrational numbers and the similarities and differences between them, understanding exponents and square roots, simplifying expressions, and solving real-world problems with rational numbers using multiple operations.	11-21%
Geometry and Measurement	Questions may include defining and describing the attributes of three dimensional geometric objects, describing two-dimensional figures that result from slicing three dimensional figures, and applying the Pythagorean Theorem	4-14%
Data Analysis, Statistics, and Probability	Questions may include constructing and interpreting scatter plots to investigate patterns of data, using data to make predictions and interpret results, understanding different sampling methods, and understanding how and why bias may be introduced into a sample set.	9-19%
Linear Equations, Inequalities, and Functions	Questions may include understanding and graphing linear equations and inequalities, understanding the functional relationship between two quantities by analyzing graphs, understanding and translating among equivalent forms of equations for linear functions.	28-38%
Systems of Equations and Inequalities	Questions may include solving pairs of linear equations in two variables by graphing, substitution, and elimination, interpreting the reasonableness of solutions of two linear equations, and representing real world problems by using a system of two linear inequalities in two variables.	4-14%
Quadratic & Exponential Equations and Functions	Questions may include understanding and comparing the differences between linear, exponential, and quadratic equations and functions, solving and graphing quadratic equations and functions, and representing real-world problems by using quadratic equations.	5-15%
Mathematical Process	Questions may include making sense of problems and persevering in solving them, reasoning abstractly and quantitatively, constructing viable arguments and critiquing the reasoning of others, modeling, using appropriate tools strategically, attending to precision, and making use of structure.	4-14%

* This range represents the approximate emphasis for each reporting category on the assessment.