ClearSight

ClearSight Math Grades 3–High School Checkpoint Assessments

The tables below provide information about the content of each checkpoint assessment **by grade and subject**. You will find the name of the checkpoint, a brief description of the skills the checkpoint assesses, and the number of forms available.

Checkpoints: Mathematics Grade 3

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Math Grade 3 – Measurement, Data, and Geometry	This test measures a student's ability to solve problems involving measurement and estimation, represent and interpret data, understand concepts of area, recognize perimeter, and reason with shapes and their attributes.	4
Checkpoint: Math Grade 3 – Number and Operations Base 10	This test measures a student's ability to use place value understanding and properties of operations to perform multi-digit arithmetic.	4
Checkpoint: Math Grade 3 – Number and Operations Fractions	This test measures a student's ability to develop an understanding of fractions as numbers.	5
Checkpoint: Math Grade 3 – Operations and Algebraic Thinking	This test measures a student's ability to represent and solve problems involving multiplication and division.	6

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Checkpoints: Mathematics Grade 4

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Math Grade 4 – Measurement, Data, and Geometry	This test measures a student's ability to solve problems involving measurement and conversion of measurements, represent and interpret data, understand concepts of angle and measure angles, draw and identify lines and angles, and classify shapes by properties of their lines and angles.	5
Checkpoint: Math Grade 4 – Number and Operations Base 10	This test measures a student's ability to generalize place value understanding for multi-digit whole numbers and to use place value understanding and properties of operations to perform multi-digit arithmetic.	5
Checkpoint: Math Grade 4 – Number and Operations Fractions	This test measures a student's ability to extend understanding of fraction equivalence and ordering, build fractions from unit fractions, understand decimal notation for fractions, and compare decimal fractions.	5
Checkpoint: Math Grade 4 – Operations and Algebraic Thinking	This test measures a student's ability to use the four operations with whole numbers to solve problems, gain familiarity with factors and multiples, and generate and analyze patterns.	5

Checkpoints: Mathematics Grade 5

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Math Grade 5 – Measurement, Data, and Geometry	This test measures a student's ability to convert like measurement units within a given measurement system, represent and interpret data, and understand concepts of volume.	5
Checkpoint: Math Grade 5 – Number and Operations Base 10	This test measures a student's ability to understand the place value system and to perform operations with multi-digit whole numbers and with decimals to hundredths.	6
Checkpoint: Math Grade 5 – Number and Operations Fractions	This test measures a student's ability to use equivalent fractions as a strategy to add and subtract fractions and to apply and extend previous understandings of multiplication and division	5
Checkpoint: Math Grade 5 – Operations and Algebraic Thinking	This test measures a student's ability to write and interpret numerical expressions and to analyze patterns and relationships.	4

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Checkpoints: Mathematics Grade 6

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Math Grade 6 – Expressions and Equations	This test measures the student's ability to apply and extend previous understandings of arithmetic to algebraic expressions, reason with and solve one-variable equations and inequalities, and represent and analyze quantitative relationships between dependent and independent variables.	5
Checkpoint: Math Grade 6 – Geometry/Statistics and Probability	This test measures the student's ability to solve real-world and mathematical problems involving area, surface area, and volume; develop an understanding of statistical variability; and summarize and describe distributions.	4
Checkpoint: Math Grade 6 – Ratios and Proportional Relationships	This test measures the student's ability to understand ratio concepts and to use ratio reasoning to solve problems.	5
Checkpoint: Math Grade 6 – The Number System	This test measures the student's ability to apply and extend previous understandings of multiplication and division to divide fractions by fractions, compute fluently with multi-digit numbers and find common factors and multiples, and apply and extend previous understandings of numbers to the system of rational numbers.	4

Checkpoints: Mathematics Grade 7

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Math Grade 7 – Expressions and Equations	This test measures the student's ability to use properties of operations to generate equivalent expressions and to solve real-life and mathematical problems using numerical and algebraic expressions and equations.	4
Checkpoint: Math Grade 7 – Geometry	This test measures the student's ability to draw, construct, and describe geometrical figures and describe the relationships between them and to solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	5
Checkpoint: Math Grade 7 – Ratios and Proportions	This test measures the student's ability to analyze proportional relationships and use them to solve real-world and mathematical problems	5
Checkpoint: Math Grade 7 – Statistics and Probability	This test measures the student's ability to use random sampling to draw inferences about a population; draw informal comparative inferences about two populations; and investigate chance processes and develop, use, and evaluate probability models.	4
Checkpoint: Math Grade 7 – Number System	This test measures the student's ability to apply and extend previous understandings of operations with fractions.	5

Checkpoints: Mathematics Grade 8

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Math Grade 8 – Expressions and Equations	This test measures the student's ability to work with radicals and integer exponents; understand the connections between proportional relationships, lines, and linear equations; and analyze and solve linear equations and pairs of simultaneous linear equations.	4
Checkpoint: Math Grade 8 – Functions	This test measures the student's ability to define, evaluate, and compare functions and to use functions to model relationships between quantities.	4
Checkpoint: Math Grade 8 – Geometry/The Number System	This test measures the student's ability to understand congruence and similarity using physical models, transparencies, or geometry software; understand and apply the Pythagorean Theorem; solve real-world and mathematical problems involving volume of cylinders, cones, and spheres; and know that there are numbers that are not rational, and approximate them by rational numbers.	6
Checkpoint: Math Grade 8 – Statistics and Probability	This test measures the student's ability to investigate patterns of association in bivariate data.	4

Secondary Mathematics Checkpoints match well to high schools using Integrated Math curriculum. High schools following a more Traditional Algebra- and Geometry-based curriculum, may find the End of Course Checkpoints of more interest.

Checkpoints: Secondary Mathematics 1

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: SM1 – Algebra	This test measures the student's ability to solve systems of equations, represent and solve equations and inequalities graphically, create equations that describe numbers or relationships, and solve equations and inequalities in one variable.	3
Checkpoint: SM1 – Geometry	This test measures the student's ability to experiment with transformations in the plane, use coordinates to prove simple geometric theorems algebraically, make geometric constructions, and understand congruence in terms of rigid motions.	3
Checkpoint: SM1 – Number Quantity/Functions/ Statistics and Probability	This test measures the student's ability to construct and compare linear, quadratic, and exponential models and solve problems; interpret functions that arise in applications in terms of the context; build a function that models a relationship between two quantities; analyze functions using different representations; reason quantitatively and use units to solve problems; understand the concept of a function and use function notation; and summarize, represent, and interpret data on a single count or measurement variable.	2

Checkpoints: Secondary Mathematics 2

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: SM2 – Functions	This test measures the student's ability to prove and apply trigonometric identities, interpret functions that arise in applications in terms of the context, build a function that models a relationship between two quantities, and analyze functions using different representations.	2
Checkpoint: SM2 – Geometry	This test measures the student's ability to understand and apply theorems about circles, prove geometric theorems, prove theorems involving similarity, and explain volume formulas and use them to solve problems.	2
Checkpoint: SM2 – Number and Quantity/Algebra	This test measures the student's ability to create equations that describe numbers or relationships, solve equations and inequalities in one variable, interpret the structure of expressions, use complex numbers in polynomial identities and equations, perform arithmetic operations on polynomials, extend the properties of exponents to rational exponents, and perform arithmetic operations with complex numbers.	2
Checkpoint: SM2 – Statistics and Probability	This test measures the student's ability to understand independence and conditional probability and use them to interpret data, use probability to evaluate outcomes of decisions, and use the rules of probability to compute probabilities of compound events in a uniform probability model.	2

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Checkpoints: Secondary Mathematics 3

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: SM3 – Functions	This test measures the student's ability to construct and compare linear, quadratic, and exponential models and solve problems; interpret functions that arise in applications in terms of the context; build a function that models a relationship between two quantities; and analyze functions using different representations.	3
Checkpoint: SM3 – Numbers and Quantity/ Algebra	This test measures the student's ability to create equations that describe numbers or relationships, interpret the structure of expressions, use complex numbers in polynomial identities and equations, perform arithmetic operations on polynomials, use polynomial identities to solve problems, rewrite rational expressions, and understand solving equations as a process of reasoning and explain the reasoning.	3
Checkpoint: SM3 – Statistics and Probability	This test measures the student's ability to summarize, represent, and interpret data on a single count or measurement variable; understand and evaluate random processes underlying statistical experiments; and make inferences and justify conclusions from sample surveys, experiments, and observational studies.	1
Checkpoint: SM3 – Trigonomic Functions/ Geometry	This test measures the student's ability to extend the domain of trigonometric functions using the unit circle, apply geometric concepts in modeling situations, visualize relationships between two-dimensional and three-dimensional objects, and model periodic phenomena with trigonometric functions.	2

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Checkpoints: Algebra I

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Alg I – Algebra, Number and Quantity	This test measures the student's ability to apply exponents to rational numbers, use properties of rational and irrational numbers, interpret the structure of expressions, write expressions in equivalent forms, create equations that describe numbers or relationships, understand solving equations as a process of reasoning and be able to explain the reasoning, solve equations and inequalities, solve systems of equations, and represent and solve equations and inequalities graphically.	2
Checkpoint: Alg I – Functions	This test measures the student's ability to construct and compare linear, quadratic, and exponential models, interpret expressions for functions in terms of the situation they model, build a function that models a relationship between two quantities, build new functions from existing functions, understand the concept of a function and use function notation, interpret functions that arise in applications in terms of the context, and analyze functions using different representations.	2
Checkpoint: Alg I – Statistics and Probability	This test measures the student's ability to summarize and interpret data on a single count or measurement variable, summarize and interpret data on two categorical and quantitative variables, and interpret linear models.	2

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Checkpoints: Algebra II

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Alg II – Algebra, Number, and Quantity	This test measures the student's ability to perform arithmetic operations with complex numbers, use complex numbers in polynomial identities and equations, understand the relationship between zeros and factors of polynomials, use polynomial identities to solve problems, rewrite rational expressions, and create equations that describe numbers or relationships using equations that have all available types of expressions including simple root fuctions.	2
Checkpoint: Alg II – Functions	This test measures the student's ability to apply trigonometric functions to the unit circle, model periodic phenomena with trigonometric functions, prove and apply trigonometric identities, construct and compare models, interpret functions that arise in application in terms of a context, and analyze functions using different representations and key features to decide upon the appropriate type of model function.	2
Checkpoint: Alg II – Statistics and Probability	This test measures the student's ability to understand independence and conditional probability and use them to interpret data, use the rules of probability to compute probabilities of compound events in a uniform probability model, use probability and statistics to understand and evaluate random processes in experiments, make inferences and justify conclusions, and interpret categorical and quantititative data on a single count or measurement variable.	2

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Checkpoints: Geometry

Test Name	What This Test Measures	Number of Available Forms
Checkpoint: Geo – Circles	This test measures the student's ability to understand and apply theorems about circles and find arc lengths and areas of sectors of circles.	2
Checkpoint: Geo – Congruence	This test measures the student's ability to experiment with transformations in a plane, understand congruence in terms of rigid motions, prove geometric theorems focusing on the validity of underlying reasoning, and make geometric constructions by formalizing and explaining processes.	2
Checkpoint: Geo – Measurement, Dimension, and Modeling with Geometry	This test measures the student's ability to use geometric concepts in modeling situations, explaing volume formulas and use them to solve problems, and visualize the relationships between two- and three-dimensional objects.	2
Checkpoint: Geo – Expressing Geometric Properties w/ Equations	This test measures the student's ability to translate between the description and the equation for a conic section and use coordinates to provide simple geometric theorems.	2
Checkpoint: Geo – Similarity, Right Triangles, and Trigonometry	This test measures the student's ability to understand similarity in terms of transformations, prove theorems involving similarity, define trigonometric ratios, and solve problems involving right triangles.	2