

## STRUCTURAL CHARACTERISTICS OF CALIFORNIA MATHEMATICS ASSESSMENTS

Test	Materials Examined	Time	Number of Items	Tools	Purpose	Framework	Content as Specified in Testing Materials
ACT	full sample form	60 minutes	60 multiple choice	calculator	selection of students for higher education	high school mathematics curriculum	pre-algebra (23%), plane geometry (23%), elementary algebra (17%), intermediate algebra (15%), coordinate geometry (15%), and trigonometry (7%)
Algebra Readiness Test	full sample form	50 minutes	60 multiple choice	calculator	assess preparation for first-year algebra	high school mathematics curriculum	arithmetic, pre-algebra
AP Calculus AB	full form, 1997 released exam	two 90-minute sections	40 multiple choice; 6 free response	graphing calculator on last 15 multiple choice items	provide opportunities for high school students to receive college credit and advanced course placement	AP calculus course description	calculus
California State University entry level mathematics placement exam	sample items	75 minutes	65 multiple choice	calculator	assess whether admitted students possess entry-level math skills	<i>Statement on Competencies in Mathematics Expected of Entering College Students</i> reviewed by faculty from California community colleges, CSU, and UC systems	algebra I and II (60%), geometry (20%), data interpretation, counting, probability, and statistics (20%)
Golden State Exam—algebra	sample items	two separate 45-minute sessions	30 multiple choice; 2 open ended	calculator and ruler	monitor student achievement toward state-approved content standards, provide special diploma	<i>Mathematics Content Standards for California Public Schools, Kindergarten Through Grade 12</i> adopted by the State Board of Education	first-year algebra
Golden State Exam—geometry	sample items	two separate 45-minute sessions	30 multiple choice; 2 open ended	calculator and ruler	monitor student achievement toward state-approved content standards, provide special diploma	<i>Mathematics Content Standards for California Public Schools, Kindergarten Through Grade 12</i> adopted by the State Board of Education	geometry

Exam-high school mathematics	items	separate 45-minute sessions	choice; 2 open ended	and ruler	achievement toward state-approved content standards, provide special diploma	<i>Standards for California Public Schools, Kindergarten Through Grade 12</i> adopted by the State Board of Education	probability and statistics
Mathematical Analysis Readiness Test	full sample form	45 minutes	45 multiple choice	calculator	assess preparation for precalculus	high school mathematics curriculum	pre-algebra, algebra, and geometry
SAT I	full sample form	two 30-minute sessions; one 15-minute session	35 multiple choice; 15 quantitative comparison; 10 grid-in	calculator	selection of students for higher education	general mathematics curriculum	arithmetic (13%), algebra (35%), geometry (26%), and other (26%)
SAT II-level IC	full sample form	60 minutes	50 multiple choice	calculator	selection of students for higher education	three-year college preparatory mathematics curriculum	algebra (30%), geometry 38% (specifically, plane Euclidean (20%), coordinate (12%), and three-dimensional (6%)), trigonometry (8%), functions (12%), statistics and probability (6%), and miscellaneous (6%)
SAT II-level IIC	full sample form	60 minutes	50 multiple choice	calculator	selection of students for higher education	more than three years of college preparatory mathematics curriculum	algebra (18%), geometry 20% (specifically, coordinate (12%) and three-dimensional (8%)), trigonometry (20%), functions (24%), statistics and probability (6%), and miscellaneous (12%)
Second year algebra readiness test	full sample form	45 minutes	45 multiple choice	calculator	assess preparation for intermediate algebra	high school mathematics curriculum	pre-algebra, algebra, geometry
Stanford 9	full form	60 minutes	48 multiple choice	calculator and ruler	monitor student achievement	National Council of Teachers of Mathematics standards	two subtests: problem-solving and mathematical procedures
Stanford 9 augmentation items	test blueprints			calculator and ruler	monitor student achievement toward California standards	California standards	23% algebra I, 31% geometry, 31% algebra II, 14% statistics