

CAHSEE Mathematics - Chapter 1

Introduction

Welcome... this book is designed for you, the student who is retaking or reviewing to take **The California High School Exit Exam (CAHSEE) in Mathematics**. This workbook is ideal for short term intensive review courses, after school tutoring, ongoing review to supplement the curriculum, and for independent study. Math anxiety reduction strategies have been used whereby you will plan out how you intend to pass the test by analyzing the CAHSEE Math blueprints. In addition to that, content is clustered by strand, so you can focus on your areas of need.

Exam Overview

For whom is CAHSEE required and how do you pass?

All public school students in the State of California must pass the CAHSEE in math and language arts as part of the requirement for receiving a high school diploma. In order to pass CAHSEE Math, you will need a scaled score of 350 which is approximately 43 items correct. However, you should aim for a scaled score of over 380 which means you achieved proficiency. Proficiency means that you got approximately 59 or more items correct.

How many items are on the test?

CAHSEE Math has 92 items given in 2 parts. There are 80 scored questions plus 12 field tested questions that are not scored. However, you will not know which 12 questions are not scored. Therefore, treat all 92 questions with equal importance.

What if I do not finish the math exam?

EVERY STUDENT SHOULD FINISH ALL 92 QUESTIONS. Although some schools may put you on a schedule and rush you, the test is untimed. Therefore, you should ask for more time to finish if you need it. Also, there is no guessing penalty, so be sure to fill in a response to all of the questions even if you are not entirely sure of the answer. Once you have completed part 1 of CAHSEE Math, you move on to part 2 and cannot go back to work on part 1.

How many attempts do I have to pass the CAHSEE?

You will first take the exam during your sophomore school year. If you pass with a score of 350 or higher, you do not take the exam again. However, if you receive a score lower than 350, you will have multiple opportunities

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to retake the exam. If you do not pass CAHSEE exam by grade twelve but have completed all other graduation requirements, you can affiliate with a community college, an adult school, or take independent study. You may also receive supplemental instruction services for at least one year following completion of grade twelve and still be eligible to receive a diploma by passing the CAHSEE. Only grade twelve and adult students may be tested during the July administration.

How can I find out more information about the CAHSEE Math test?

Each school should have a test coordinator who can give you information. In addition to that, you can visit the California Department of Education website at:

<http://www.cde.ca.gov/ta/tg/hs/>

Some Policies That Are Important To Know

The information below was taken from bulletins available from California Department of Education. For complete bulletins, or for more information on CAHSEE regulations, visit the CDE Web site at

<http://www.cde.ca.gov/ta/tg/hs/documents>

When do students take the CAHSEE?

All students must take the CAHSEE in grade ten, only once, in either February or March – not earlier. Grade ten students who were absent can take it in either March or May. Retained grade ten students who passed the CAHSEE may not retake the exam.

Grade eleven students can take the CAHSEE two times per school year for the part(s) not previously passed but not in successive administrations (e.g., October and November).

Grade twelve students may be administered the CAHSEE up to three times in a school year for the part(s) of the exam not previously passed and can test in successive administrations.

Adult students can take the CAHSEE up to three times per school year for the part(s) of the exam not previously passed. Adult students may test in successive administrations.

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What is done to assist English learners taking the CAHSEE?

Students who are English learners are required to take the CAHSEE starting in grade ten with all other students. English learners must be permitted to take the CAHSEE with certain test variations if used regularly in the classroom. For example, if regularly used in the classroom, English learners must be permitted to hear the test directions in their primary language or use a translation glossary.

When are the CAHSEE results ready?

About eight weeks after each administration of the exam, school districts receive two copies of the CAHSEE Student and Parent Report for each student who took the examination. Schools distribute one copy to parents and guardians and place the other copy in the student's permanent record. It is important that parents and guardians keep a copy of the student report for their own records. California Department of Education does not keep a copy of individual student reports.

What happens if students do not pass the CAHSEE?

School districts are required to provide additional instruction to assist students who do not pass the exam. Parents and guardians are encouraged to contact their school for information on the programs offered.

Can calculators be used?

The use of a calculator is considered a modification which results in a score that is not valid. Students with disabilities who take the CAHSEE using any modification and receive the equivalent of a passing score may be eligible for a local waiver pursuant to Ed Code Section 60851(c).

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The Anatomy of The CAHSEE Mathematics Test STANDARDS BLUEPRINT

Standard	Statistics, Data Analysis, and Probability	Items
	Grade 6	8
1.1	Compute the range, mean, median, and mode of data sets.	3
2.5	Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims.	1
3.1	Represent all possible outcomes for compound events in an organized way (e.g., tables, grids, tree diagrams) and express the theoretical probability of each outcome.	1
3.3	Represent probabilities as ratios, proportions, decimals between 0 and 1, and percentages between 0 and 100 and verify that the probabilities computed are reasonable; know that if p is the probability of an event, $1-p$ is the probability of an event not occurring.	2
3.5	Understand the difference between independent and dependent events.	1
	Grade 7	4
1.1	Know various forms of display for data sets, including a stem and leaf plot or box and whisker plot; use the forms to display a single set of data or to compare two sets of data.	2
1.2	Represent two numerical variables on a scatterplot and informally describe how the data points are distributed and any apparent relationship that exists between the two variables (e.g., between time spent on homework and grade level).	2
	Number Sense	
	Grade 7	14
1.1	Read, write, and compare rational numbers in scientific notation (positive and negative powers of 10) with approximate numbers using scientific notation.	1
1.2	Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.	3
1.2	Convert fractions to decimals and percents and use these representations in estimations, computations, and applications.	2
1.6	Calculate the percentage of increases and decreases of a quantity.	1
1.7	Solve problems that involve discounts, markups, commissions, and profit and compute simple and compound interest.	2
2.1	Understand negative whole-number exponents. Multiply and divide expressions involving exponents with a common base.	1
2.2	Add and subtract fractions by using factoring to find common denominators.	1
2.3	Multiply, divide, and simplify rational numbers by using exponent rules.	1
2.4	Use the inverse relationship between raising to a power and extracting the root of a perfect square integer; for an integer that is not square, determine without a calculator the two integers between which its square root lies and explain why.	1
2.5	Understand the meaning of the absolute value of a number; interpret the absolute value as the distance of the number from zero on a number line; and determine the absolute value of real numbers.	1
	Algebra and Functions	
	Grade 7	17
1.1	Use variables and appropriate operations to write an expression, an equation, an inequality, or a system of equations or inequalities that represents a verbal description (e.g., three less than a number, half as large as area A).	2
1.2	Use the correct order of operations to evaluate algebraic expressions such as $3(2x + 5)^2$.	1
1.5	Represent quantitative relationships graphically and interpret the meaning of a specific part of a graph in the situation represented by the graph.	3