



A Mathematics Curriculum for Grades 6-12

including a
Professional Development Program

designated
"An Exemplary Mathematics Program"
--U. S. Department of Education

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These pages offer a quick overview of the CPM course materials along with a brief introduction to CPM Educational Program. This information is usually accompanied by a CD that contains a sample chapter of each course, multimedia overviews of the program, including classroom examples, and research results for the past 15 years. The last page in this packet explains what to do next after you review these resources and how to contact CPM.

A Special Note about CPM's Teacher In-Service Support

CPM is committed to supporting teachers' efforts to implement the program. A workshop series for each course offers peer support to help teachers manage an investigation-based, student-centered classroom. Workshops deal with classroom management, program rationale, teaching strategies, chapter-by-chapter course content review, and assessment ideas.

Workshops are typically held for four days in the summer and three days during the school year. Regularly scheduled workshops at about 40 sites around the country are free (excluding teacher released time and travel costs). See the CPM web site, www.cpm.org, for more details.



CPM Educational Program

A California, Non-Profit Corporation

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COLLEGE PREPARATORY MATHEMATICS

developed at the

UNIVERSITY OF CALIFORNIA, DAVIS

Introduction:

College Preparatory Mathematics (CPM) is a complete, balanced mathematics program for middle school and high school students who want to learn the basics and more. **The U. S. Department of Education designed CPM "an exemplary program" in October, 1999.** CPM includes a two-year middle school curriculum and a high school program of Algebra 1, Geometry, Algebra 2, Math Analysis (Pre-Calculus), and Calculus accepted by every college and university in the country. CPM students are prepared to know fundamental skills and procedures, understand concepts, and acquire an array of problem solving strategies so that they will be prepared to be successful in college mathematics courses and the workplace of the 21st century.

In line with the requests of leaders of high-tech industries, CPM students learn to work together in study teams on challenging problems. Under the careful guidance of their teachers, CPM students explore the major concepts of middle school and high school mathematics in a variety of ways designed to provide them with several means to solve math problems. CPM students are assisted in making the transition to higher mathematics by doing problems which illuminate concepts in four major ways: numerically, symbolically, graphically, and verbally. Deep ideas are spread over weeks or months as students engage and re-engage the same concepts in a wide variety of contexts and degrees of difficulty with frequent opportunities to cement their understanding of basic ideas and their intellectual connections.

As a result of the carefully designed problem sequence of the books, CPM students score at least as well but usually somewhat better (and often substantially better) on standard multiple choice exams than students in traditional classes. On written response questions, CPM students score 30-40% higher. Transcript studies indicate that very high ability CPM students who take Algebra 1 in the 8th grade are 60% more likely to enroll in calculus classes in high school than students in traditional classes at the same school. At the same time, average students are significantly more likely to persist in mathematics than students in traditional classes. SAT9 scores for 175 California CPM high schools are six to ten percent higher than the state average. College Board SAT scores increased by an average of 11 points in 25 schools that have used CPM for three years or longer (1995-98).

The goal of CPM Educational Program is simple: improve the effectiveness of secondary mathematics instruction by incorporating contemporary knowledge about how people learn into student texts and teacher methodology. CPM is built on the fundamentals of the existing mathematics curriculum and incorporates the mathematics necessary for success in the 21st century. CPM has helped more than 4,000,000 students make sense of mathematics and see both the power and the beauty of the subject. School adoptions of the Program have grown exponentially since thirty teachers began with an Algebra 1 pilot project in 1989. CPM is now a seven-year curriculum used by more than 2,500 teachers in more than 800 schools.

College Preparatory Mathematics Teacher and School Statistics

<u>STATE</u>	<u>NO. OF SCHOOLS</u>	<u>NO. OF TEACHERS</u>
<u>California</u>	359	1,396
<u>Colorado</u>	88	376
<u>Florida</u>	53	434
<u>Georgia</u>	12	104
<u>Hawaii</u>	10	46
<u>Indiana</u>	10	62
<u>Michigan</u>	14	61
<u>Minnesota</u>	14	61
<u>New Jersey</u>	10	42
<u>New York</u>	23	99
<u>Oregon</u>	48	202
<u>Pennsylvania</u>	36	261
<u>Texas</u>	12	62
<u>Washington</u>	48	186
<u>Wisconsin</u>	16	69
<u>Wyoming</u>	19	70
<u>Others*</u>	40	261
TOTALS**	812	3,792

*Other states: Alabama, Arkansas, Connecticut, District of Columbia, Idaho, Illinois, Maine, Massachusetts, Montana, Nebraska, Nevada, New Hampshire, Ohio, Oklahoma, Rhode Island, South Dakota, Tennessee, Utah, and Vermont,

**Totals: These figures reflect those CPM teachers and schools listed in the CPM database as using CPM materials in their classrooms. There are several hundred other teachers who use CPM but who do not keep their registration with CPM current.