

CSU/UC Mathematics Diagnostic Testing Project

Spring
2019

Newsletter



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MDTP's Mission and Vision

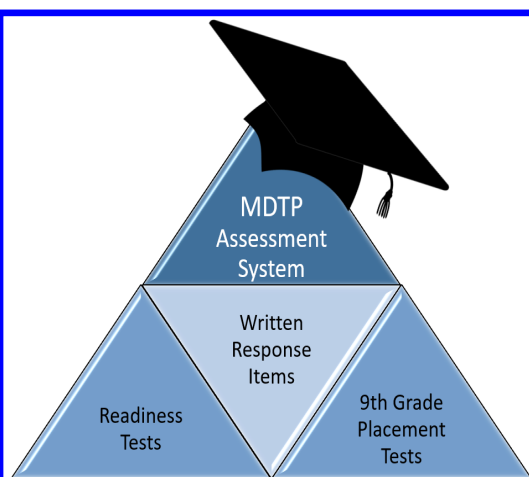
Vision: MDTP *envisions* that all California students will achieve mathematical preparedness for and success in college-level mathematics courses.

Mission: MDTP achieves this *vision* by developing and providing diagnostic tools and training to support California mathematics educators in preparing students for success in current and subsequent mathematics courses.

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The MDTP Assessment System

- The MDTP assessment system provides three instruments for secondary educators to use in support of our vision *that all California students will achieve mathematical preparedness for, and success in, college-level mathematics courses.*
- MDTP data results *support mathematics educators* to purposefully plan and intervene to prepare students for college-level mathematics by achieving success in their current course content.
- MDTP assessments are organized by course, topic, and skill through the progression of students' secondary mathematics learning, are aligned to California standards for mathematics, and *span from grades six through twelve.*
- Explore the appropriate and effective uses of the **Readiness Tests**, 9th grade **Placement Tests**, and **Written Response Items** below.

Appropriate and Effective Uses

MDTP Readiness Assessments

MDTP Readiness Tests measure students' preparedness for the foundational topics of their current or subsequent course of study. The diagnostic data should be used as a formative assessment to help teachers understand students' mathematical strengths and areas of unfinished learning to inform instruction and interventions, to evaluate course readiness, to measure program growth, and to identify content for professional learning.

Fall Implementation: The Start of a Formative Assessment Cycle

Early-course MDTP results inform student readiness around MDTP topics, and item-level results can illuminate student thinking around the key concepts of mathematics. Analyses inform knowledge about student and class strengths, common misconceptions, gaps of content knowledge, and areas where intervention is needed.

Mid-Year Growth Analysis: The Next Formative Assessment Cycle

Mid-year analyses reflect student progress in response to the enactment of instructional intervention with the goal to close gaps and remedy misconceptions. Mid-year results inform course planning with the purpose of providing just-in-time instruction to support students' access to the course content.

End-of-Year Program Analysis And Next Course Readiness

End-of-year analyses inform students' next-course readiness and determine program strengths and potential areas for program growth. Educators can use end-of-year results to inform instructional changes designed to improve student readiness for their next teaching year. These results could also be used to determine the effectiveness of instructional adjustments made in response to prior MDTP data.

MDTP 9th Grade Placement Assessments

MDTP Placement Tests provide one reliable indication of the extent to which a student's current mathematical proficiency matches the skills and knowledge needed for success in a 9th grade math course. The diagnostic results should be used as one measure within a set of multiple measures to inform appropriate options for students' mathematical engagement in coursework towards college preparation. The diagnostic feedback from placement tests can be used to inform program reflection and design.

Spring Implementation: Inform Placement

Assess exiting 8th grade students using one of three MDTP Placement Tests as one measure to inform options for placement (see page 3 for test information).

Fall Implementation: Check Placement

Assess entering 9th grade students using the course appropriate MDTP Readiness Test to check placement and use diagnostically to inform instruction (see page 3 for test information).

MDTP Written Response Items

MDTP open-ended **Written Response Items (WRIs)** are designed to provide opportunities for students to reason, think, and communicate effectively about mathematics. Each written response item is accompanied by a teacher-scoring rubric and problem essence statement. Student responses provide teachers with a detailed view of each student's conceptual grasp of a topic aligned to MDTP Readiness and Placement tests.

WRIs engage students throughout the year in rich tasks supporting the instructional shifts of the Common Core classroom. See Page 4 for more information on Written Response Items

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MDTP 9th Grade Assessment Package

Guidelines for Using MDTP for Meeting SB-359 Expectations

In response to Senate Bill 359 (SB-359) California Mathematics Placement Act of 2015, MDTP offers two assessment tools to help schools and districts enact the following two articles of Section 2 of the Senate Bill:

- 1) Enact a fair, objective, and transparent placement policy using multiple measures which may include placement tests aligned to state-adopted content standards (SB-359 Sec. 2.51224.7 (1))
- 2) Include at least one placement check point within the first month of the school year (SB-359 Sec. 2.51224.7 (2))

Article 1: Use MDTP in the Spring as One Measure to Inform Students' Course Options

For *spring implementation*, we offer the following MDTP Tests:

- **High School Mathematics Assessment (HSA)** for students in 8th grade Common Core math entering an entry-level math course in 9th grade such as Algebra 1 or Integrated Math 1
- **Geometry Placement Test (GP)** for students in 8th grade Common Core Algebra 1
- **Integrated Second Year Placement Test (ISP)** for students in 8th grade Common Core Integrated Math 1

The MDTP 9th Grade Placement Tests could be used as ***one measure within a set of multiple measures*** to inform appropriate options for students' mathematical engagement in coursework towards college preparation. The diagnostic feedback from the 9th-grade assessments can be used to inform program reflection and design. *Note: MDTP does not offer criteria for using MDTP Assessments for placement and these tests are only available for online administration.*

Article 2: Use MDTP in the Fall as a Placement Checkpoint and as Formative Assessment

For *fall implementation*, we offer the following MDTP Tests:

- **High School Mathematics Readiness Test** for students entering an entry-level math course in 9th grade such as Algebra 1 or Integrated Math 1
- **Geometry Readiness Test (GP)** for students entering Geometry in 9th grade
- **Integrated Second Year Readiness Test** for students entering Integrated Math 2 in 9th grade

Corresponding MDTP Readiness Tests could be used to check student placement and the diagnostic results could be used formatively to: help understand students' strengths and areas of unfinished learning and to inform necessary instructional shifts and interventions. *Readiness Tests are for online and paper administration.*

Suggested Administration of MDTP to Support SB-359 for Students Entering 9th Grade

Course (Grade 8)	Spring Administration (Grade 8)	Fall Administration (Grade 9)
Common Core Math 8	<i>High School Mathematics Assessment</i>	<i>High School Mathematics Readiness Test</i>
Algebra 1	<i>Geometry Placement Test</i>	<i>Geometry Readiness Test</i>
Integrated Math	<i>Integrated Second Year Placement Test</i>	<i>Integrated Second Year Readiness Test</i>

Order MDTP Readiness and Placement Tests at: <http://mdtp.ucsd.edu/k12-users/order-tests.html>



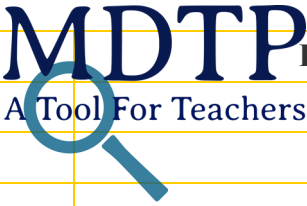
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MDTP Written Response Items

Use MDTP open-ended **Written Response Items (WRIs)** to spark critical thinking and elicit your students' crystal-clear reasoning. WRIs are designed to provide opportunities for students to reason, think, and communicate effectively about mathematics. Each written response item is accompanied by a teacher-scoring rubric and problem essence statement and are available free online to California Math Educators.

Written Response Items Topics of Study

Written Response Items are organized around foundational topics of mathematics. Student responses provide teachers with a detailed view of each student's conceptual grasp of the topics listed below, which are aligned to MDTP Diagnostic Assessments.

Decimal, Percent and their Applications		Linear Equations and Inequalities
Fractions and their Applications		Exponents and Square Roots
Integers, their Operations and Applications		Functions
Geometric Concepts, Applications and Logic		Graphical Representations
Polynomials, Quadratics and Rational Expressions		

Ideas for Engagement and Student-Centered Strategies for Implementation

MDTP Written Response Items can be administered across multiple grade-level courses and different skill sets as a formative learning experience. The MDTP Director offers the following ideas for three engagement levels with student-centered strategies for implementation:

- * **Introducing:** When students are first learning the content and are exploring their strategies and developing their skills sets
 - ⇒ Students solve a problem independently. Monitor students' progress and choose a few students to present their ways of thinking
 - ⇒ Purposely align student presentations to lead into the upcoming lesson
 - ⇒ Anticipate errors and deliver content in response to errors
 - ⇒ Assess learning of new content and provide feedback using rubric
- * **Advancing:** When students have spent time in the content and are advancing their knowledge and are incorporating diverse and flexible skill sets
 - ⇒ Students work collaboratively to solve the problem, and through discussion, justification, argument, and debate, students agree on one solution and present/submit this one solution
 - ⇒ Poster walks
 - ⇒ Chart and name novel methods and class-validated methods
 - ⇒ Assess student understanding, build on charted methods, and remedy errors or misconceptions (see re-engagement)
- * **Re-engaging:** When activating students' prior knowledge to launch a new concept/skill or when a common misconception has been identified and *needs* intervention
 - ⇒ Activate Prior Knowledge: take pulse and design lessons to meet students where they are
 - ⇒ Remedy Misconceptions:
 - ⇒ Complete one section and return over multiple days to distribute (space) the learning over time to build retention
 - ⇒ Chart student responses and keep charts visible for reference during instruction

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MDTP RELEASED DIAGNOSTIC TESTS for Secondary Education (See page 2 for new field tests)

Test Name	Description	Test Code	Test Status
<i>Tests Aligned to the California Common Core State Standards for Mathematics</i>			
Grade 7 Readiness	Measures readiness for a grade 7 Common Core math course. This test replaces Prealgebra Readiness. (See page 2 for field test for Grade 6.)	7R40A15	Released 2015
Grade 8 Readiness	Measures readiness for a grade 8 Common Core math course or a compacted grade 7/8 course. This test replaces Prealgebra Readiness.	8R40A15	Released 2015
High School Readiness	Measures readiness for a first year high school mathematics course such as Algebra I, Integrated Math I, or compacted Grade 8 Math and Algebra I/Math I Common Core courses. This test replaces Algebra Readiness.	HS45A15	Released 2015
Integrated Second Year Readiness	Measures readiness for a second year integrated mathematics Common Core course.	IS45A17	Released 2017
Integrated Third Year Readiness	Measures readiness for a third year integrated mathematics Common Core course.	IT45A17	Released 2017
<i>Pre-Common Core Released Tests</i>			
Geometry Readiness	Measures readiness for a geometry course following a traditional Algebra I pre-Common Core math course. (See page 2 for new Common Core aligned field test.)	GR45A06	Released 2006
Second Year Algebra Readiness	Measures readiness for an Algebra 2 or Intermediate Algebra course following a traditional Geometry pre-Common Core math course. (See page 2 for new Common Core aligned field test.)	SR45A06	Released 2006
Mathematical Analysis Readiness	Measures readiness for success in a trigonometry, precalculus, or mathematical analysis math course.	MR45A08	Released 2008
Calculus Readiness	Measures readiness for success in a first-year calculus math course offered in high school.	CR45A12	Released 2012
Older released versions of MDTP tests may be available online or in paper form, depending on availability, and can be requested by contacting mdtp@ucsd.edu.			

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MDTP REGIONS

CORRESPONDING COUNTIES

MDTP SITES

SITE DIRECTORS and COORDINATORS

<p>Berkeley Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Sonoma, and Stanislaus counties</p>	<p>UC Berkeley Emiliano Gomez, Site Director Office: (510) 642-0752 Jaqueline Frias, Coordinator Office: (510) 642-0846 Email: mdtp@math.berkeley.edu</p>
<p>Davis and Chico Alpine, Amador, Calaveras, El Dorado, Placer, Sacramento, San Joaquin, Solano, Sutter, Yolo, Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity, and Yuba (<i>Note: The UC Davis regional office now supports the CSU Chico region.</i>)</p>	<p>UC Davis Julie Mustard, Coordinator Office: (530) 754-9504 Pat King, Outreach Facilitator Email: mdtp@ucdavis.edu</p>
<p>Fresno Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, southern San Benito, Tulare, and Tuolumne</p>	<p>CSU Fresno Agnes Tuska, Site Director Office: (559) 278-4773 Devonna Butler, Coordinator Office: (559) 278-2512 Email: agnest@csufresno.edu Email: devonna@mail.fresnostate.edu</p>
<p>Fullerton Orange county and schools in Los Angeles, Riverside, and San Bernardino counties near Fullerton</p>	<p>CSU Fullerton David Pagni, Site Director Office: (657) 278-2671 Angela Hoang, Coordinator Office: (657) 278-2691 Email: mdtp@fullerton.edu</p>
<p>Los Angeles Los Angeles and Ventura counties, except for schools closer to Fullerton</p>	<p>UC Los Angeles Mary Sirody, Site Director Office: (310) 825-0798 Nora Perez, Coordinator Office: (310) 825-9477 Email: mdtp@ucla.edu</p>
<p>San Bernardino San Bernardino and Riverside counties, except schools closer to Fullerton or San Diego</p>	<p>CSU San Bernardino Giovanna Lloset, Site Director Office: (909) 537-3604 Ana Sanchez, Coordinator Office: (909) 537-7670 Email: mdtp@csusb.edu</p>
<p>San Diego Imperial, Riverside, and San Diego counties, except schools closer to San Bernardino or Fullerton</p>	<p>UC San Diego Deanna Khan, Coordinator Office: (858) 534-3373 Carol Treglio, Outreach Facilitator Email: mdtpsandiego@ucsd.edu</p>
<p>San Luis Obispo and Santa Cruz San Luis Obispo, Santa Barbara, Monterey, northern San Benito, Santa Clara, and Santa Cruz (<i>Note: The CSU SLO regional office now supports the UC Santa Cruz region.</i>)</p>	<p>Cal Poly San Luis Obispo Kate Riley, Site Director Office: (805) 756-2445 Dale Wilbur, Coordinator Email: kriley@calpoly.edu Email: dwilbur@calpoly.edu</p>

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CONTACT US

Teachers should contact the MDTP Site Director's Office (listed on page 5) that serves their geographic region to order materials, resources, and area outreach services.



MDTP Project Management: For assistance with online testing and ordering MDTP materials and out-of-state licenses or post-secondary licenses

Joshua Cho, MDTP Coordinator

Call: (858) 822-2590 or email: mdtp@ucsd.edu

MDTP Financial Analyst: For financial support

Kelley Rollans, MDTP Fiscal Analyst

Call: (858) 534-4519 or email: krollans@ucsd.edu

MDTP Director

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