

Measuring Student Progress with Think Through Math and the Quantile[®] Framework



Every educator knows how critical it is to link assessment and instruction. While Think Through Math has always focused on improving student math performance with our intrinsic and extrinsic motivation, rigorous adaptive software, and on-demand support from certified online teachers, we've now added the ability to measure on-going student progress by integrating The Quantile[®] Framework for Mathematics by MetaMetrics[®].

Available for the 2015-16 school year, the updated placement test and new embedded benchmarks eliminate the need to review student testing data from other systems in order to measure on-going student progress throughout the year. Seamlessly integrated into the flow of TTM, the new tests are fast, easy to use, and student results can immediately be viewed by educators through their class-, school- and district-level Think Through Math progress reports.

What is The Quantile Framework for Mathematics?

The Quantile[®] Framework for Mathematics is a scientifically validated developmental scale that measures a student's mathematical achievement level and indicates which mathematical topics a student is ready to learn.

A Quantile measure is also used to gauge the difficulty of mathematical skills and concepts contained in each TTM lesson. With both the students and curriculum receiving Quantile measures, content can be easily tailored to students' abilities while allowing teachers to determine if students are on track to pass year-end assessments and successfully transition to college or a career.



TTM's Adaptive Placement and Benchmark Tests

Developed in partnership with MetaMetrics to ensure validity and reliability, the TTM adaptive placement and benchmark tests will help determine student readiness to learn math at a certain level and will help educators optimize the use of TTM for each student.

Students receive three assessments – all of which are delivered seamlessly within the Think Through Math program. When they are initially enrolled in the program, each student takes an adaptive placement test to determine the student's skill level. Through the year, each student takes up to two additional benchmark tests to determine his or her individual progress over time. Audio support in English and Spanish is available for both adaptive placement and benchmark tests.

Both the placement and benchmark tests generally consist of 30 items and are meant to be taken in a single-class setting. Each test should take between 25 and 40 minutes, with a minimum of 30 days required between tests.

Upon completion of the initial placement test, TTM will immediately calculate an initial Quantile measure and the student's corresponding grade level, and assign the student to the appropriate personalized pathway.

To learn more about our adaptive placement and benchmark tests, visit the Resources section (within the Help tab) on the Think Through Math platform.

The screenshot shows the Think Through Math dashboard for a student named Jane Smith. The dashboard includes a navigation menu, a header with the student's name and grade level, and several data visualization and table components.

Math Time (YTD)

Category	Time
School Time	34:08
Nights/Weekends	29:03

Student Performance

Total Passed: 100%

- 100% (1 of 1 Unique Lessons Passed) - Below-Grade Lessons
- 100% (8 of 8 Unique Lessons Passed) - On-Grade Lessons

Benchmark Tests

Test	Date	Quantile® Measure	Quantile® Growth (%)	Performance Level	Percentile Rank	NCE
Adaptive Placement	07/04/2015	755Q	--	Proficient	79	67
Benchmark	12/06/2015	835Q	10.6%	Proficient	84	72
Benchmark	05/11/2016	915Q	9.6%	Proficient	89	86

Lesson Activity

Lesson Title	Grade Level	Pre-Quiz Score (% Tested Out)	Post-Quiz Score (% Tested Out)	Time on Lesson (HH:MM)	Date Completed
Multiplying by Powers of Ten	5	86%	100%	00:29	04/04/2016 02:21 PM
Multiplying and Dividing by Powers of Ten	6	86%	100%	00:44	04/09/2016 07:41 AM
Dividing Whole Numbers - Standard Algorithm	6	100%	100%	00:19	04/15/2016 07:50 AM
Relating Factors and Multiples II	6	29%	100%	00:20	04/19/2016 08:11 AM
Greatest Common Factor	6	100%	100%	00:47	04/21/2016 08:41 AM
Greatest Common Factor - Applications	6	52%	86%	00:32	04/23/2016 08:00 AM
Least Common Multiple	6	100%	100%	00:29	04/25/2016 12:12 AM
Adding and Subtracting Mixed Numbers with Like Denominators	6	86%	100%	00:41	04/29/2016 12:17 AM
Word Problems with Fractions and Mixed Numbers - Visual Models	6	86%	100%	00:53	05/02/2016 08:04 AM
636 - Paying for College I	6	--	--	--:--	--

Important points to remember:

- Items used in assessments will be used only in assessments and will not appear in students' regular lesson content.
- Items used in assessments are multiple-choice format only.
- When taking the adaptive placement or benchmark tests, students will not be able to access their dashboard, contests, point redemption, avatar building, badges, messages or TTM lesson content.
- Once the test is complete, access to other parts of TTM will be restored.
- Calculator and formulas will be provided if the test item requires them.
- An indication of right or wrong is not shown when answers are selected from within the tests.
- All students will take the adaptive placement test as their first action in TTM.