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New York State Testing Program
Common Core
3–8 Mathematics Test

Understanding the Common Core
3–8 Mathematics Score Reports

August 2014

New York State Testing Program
Common Core Mathematics Test

Understanding the Mathematics Score Report

With the adoption of the New York P-12 Common Core Learning Standards (CCLS) in English Language Arts (ELA)/Literacy and Mathematics, the Board of Regents signaled a shift in both instruction and assessment. Beginning in Spring 2013, New York State administered tests designed to assess student performance in accordance with the instructional shifts and the rigor demanded by the Common Core State Standards (CCSS). To aid in the transition to new tests, New York State has released a number of resources, including test blueprints and specifications, sample questions, and criteria for writing test questions. This document will explain reports that families receive for the Spring 2014 Common Core Mathematics tests for grades 3-8. These annotated score reports will help students, families, educators, and the public better understand how to interpret the 2014 score reports.

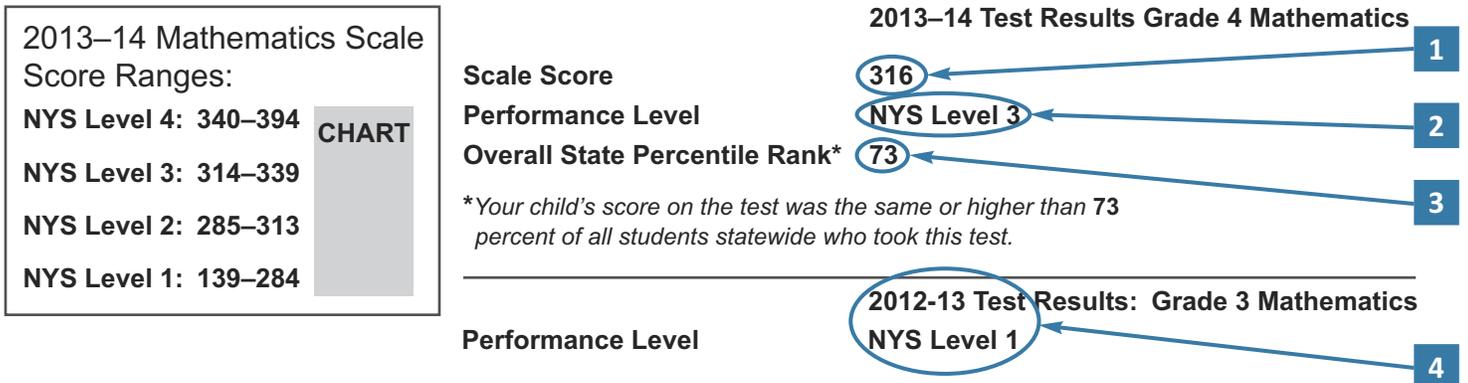### Understanding the Mathematics Score Report

Each year, students in grades 3–8 take the Mathematics Common Core Test. Scores from these tests do not tell the whole story about what a child knows and can do. The results from the Grade 3-8 Mathematic tests will not be included in your child's official transcript or permanent student record.

After the test, families receive a report that explains how their child performed. This document explains the parts of that score report. This document uses a grade 3 score report as an example. If your child is not in grade 3, you may notice some differences. These differences are explained in Section 4 of the document. We encourage you to work with your child's teachers and other educators to put together a plan to specifically target what your child learns and how he or she learns best. If you are concerned by your child's overall score or by your child's performance on specific domain we encourage you to:

- Ask your child's math teacher about which skills your child finds most challenging.
- Review with your child his or her math class work and homework to see whether he or she is progressing in the same skills.
- Talk to your child's math teacher and/or the principal to see if your child may need additional, targeted support to improve these skills.
- Advocate for your child to receive additional support as needed. All students whose Performance Level is either NYS Level 1 or NYS Level 2 are eligible for academic intervention services (AIS) from their school.

Note: The scale score and "Points Earned By Your Child" for subscores are provided for illustrative purposes only. All other reported numbers reflect actual state performance.

Your Child's Test Results

2013–14 Mathematics Scale
Score Ranges:

NYS Level 4: 340–394

NYS Level 3: 314–339

NYS Level 2: 285–313

NYS Level 1: 139–284

CHART

2013–14 Test Results Grade 4 Mathematics

Scale Score   316   **1**

Performance Level   NYS Level 3   **2**

Overall State Percentile Rank*   73   **3**

*Your child's score on the test was the same or higher than **73**
  percent of all students statewide who took this test.*

2012-13 Test Results: Grade 3 Mathematics

Performance Level   NYS Level 1

4

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1 *Scale Score (2013–14):* The *Scale Score* is determined by the number of points your child earned on the test in 2013–14. The number of points have to be on a scale so that the test results mean the same thing year after year even though different students are taking the test with different questions. The higher the number of points your child earned, the higher his or her scale score. Scale scores are most meaningful when they are associated with a performance level. Table 1 provides the range of scale scores for each grade in 2013–14, as well as the scale score your child would need to meet their grade level performance expectations and to be on track for college and career readiness. Note that the 2013–14 scale score may be absent from the report if a student completed an insufficient number of items on the exam, was medically excused from the exam, or there was an administrative error.

Table 1: Range and Proficiency Level of Scale Scores Across Grades

	Grade					
	3	**4**	**5**	**6**	**7**	**8**
Range of Scale Scores	139–394	126–402	126–405	119–399	133–401	119–403
Scale Scores Greater than or Equal to this Value are Proficient	314	314	319	318	322	322

2 *Performance Level (2013–14):* Students are assigned a *Performance Level* based on how they perform on the test. There are four possible performance levels: NYS Level 1, NYS Level 2, NYS Level 3, and NYS Level 4. Each student is assigned to a performance level based on the scale score earned. For example, the student in the score report achieved a NYS Level 3. This level of performance indicates the student demonstrated proficiency of the grade level standards. For a full description of each performance level, please refer to the bottom of page 1 on the score report. For a detailed description of the skills, knowledge, and practices that are typical of students at each performance level, please visit
http://www.engageny.org/resource/performance-level-descriptions-for-ela-and-mathematics

3 *Overall State Percentile Rank (2013–14):* *Overall State Percentile Rank* compares your child's score to the rest of the students who took the same subject area test in 2013–14. Percentile ranks are reported on a scale of 1–99. If your child has an *Overall State Percentile Rank* of 73, it means that your child's scale score was the same or higher than 73% of all students who took the same test. The higher the *Overall State Percentile Rank*, the better your child did compared to other students.

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4 ***Performance Level (2012–13):*** The 2012–13 performance level indicates the performance level your child achieved on 2012–13 test. The 2012–13 performance level can be compared to the 2013–14 performance level to determine whether your child has demonstrated improvement between years. If your child achieved a NYS Level 1 in 2012–13 and then achieves a NYS Level 3 in 2013–14, then your child has gone from performing well below proficient to demonstrating grade level proficiency in the grade level standards. Note that students taking the 3rd grade exam will not have a 2012–13 performance level as there is no assessment in 2nd Grade.
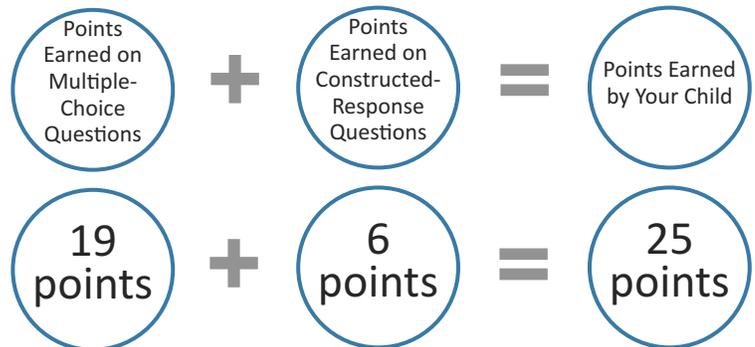
Note: The scale score and "Points Earned By Your Child" for subscores are provided for illustrative purposes only. All other reported numbers reflect actual state performance.

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Mathematics Common Core Domains and Emphasized Clusters	Points Earned By Your Child ⑥	Number of Possible Points ⑦	Average Points Earned Across NY ⑧
Operations and Algebraic Thinking ⑤			
Students multiply and divide within 100. Students understand the properties of multiplication and the relationship between multiplication and division. Students solve problems involving the four operations—addition, subtraction, multiplication, and division—and identify and explain patterns in arithmetic.	25	27	17
Numbers and Operations—Fractions			
Students recognize fractions as numbers, understanding that a fraction is formed when a whole is divided into several equal parts. Students recognize and are able to generate equivalent fractions. Additionally, students compare two fractions with the same numerator or the same denominator.	8	12	6
Measurements and Data			
Students solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. Students also understand concepts of area and relate area to multiplication and addition.	10	12	8

⑤ *Mathematics Domain Subscores:*

The points from the Mathematics test are divided into three reported subscores. These subscores measure major content areas for the grade, which are organized by domains (e.g., **Operations and Algebraic Thinking**). Domain subscores are calculated based on points earned on groups of questions that assess major content areas. These subscores differ by grade because of the differences in the knowledge and skills students are required to demonstrate at each grade. Please refer to Table 2 at the end of this document for the reported domains in other grades.

Please refer to the test guides for more information on the specific domains for each grade
http://www.engageny.org/resource/test-guides-for-english-language-arts-and-mathematics

⑥ *Points Earned By Your Child on Domain Subscores:*

Points Earned By Your Child on domain subscores represents the number of points your child earned on questions measuring that domain (e.g., **Operations and Algebraic Thinking**). Each multiple-choice question that your child answered correctly earns one point. Your child may earn multiple points for each constructed-response question.

There are two types of constructed-response questions: short-response (maximum of 2 points) and extended-response (maximum of 3 points). Teachers rate each student's response to these questions. The points earned on the constructed-response questions are added to the number of multiple-choice questions answered correctly to equal the *Points Earned By Your Child* on the domain subscore. See the example below.

Points Earned on Multiple-Choice Questions **+** Points Earned on Constructed-Response Questions **=** Points Earned by Your Child

19 points **+** 6 points **=** 25 points

For examples of questions from the 2014 Mathematics test, please visit
http://www.engageny.org/resource/new-york-state-common-core-sample-questions

Note: The scale score and "Points Earned By Your Child" for subscores are provided for illustrative purposes only. All other reported numbers reflect actual state performance.

7 *Number of Possible Points on Domain Subscores:*

Number of Possible Points on domain subscores describes the total number of points measuring that specific domain on the 2014 Mathematics test. This includes all possible points from both multiple-choice and constructed-response questions in that domain. These points can be compared with *Points Earned By Your Child* on domain subscores. For example, if your child's *Points Earned By Your Child* is 25 from questions measuring **Operations and Algebraic Thinking** and the *Number of Possible Points* from questions measuring **Operations and Algebraic Thinking** is 27, then he or she missed a total of two points in the **Operations and Algebraic Thinking** domain.

Mathematics Common Core Domains and Emphasized Clusters	Points Earned By Your Child	Number of Possible Points
Operations and Algebraic Thinking		
Students multiply and divide within 100. Students understand the properties of multiplication and the relationship between multiplication and division. Students solve problems involving the four operations—addition, subtraction, multiplication, and division—and identify and explain patterns in arithmetic.	**25**	**27**

For more information about how many questions were included on each section of the test, please refer to
http://www.engageny.org/resource/test-guides-for-english-language-arts-and-mathematics

8 *Average Points Earned Across NY:*

The *Average Points Earned Across NY* on domain subscores reports the average number of points earned by students throughout the state in 2014. This number can be used to compare your child's performance to the other students who took the Mathematics test in their grade. For example, if your child earned 25 points in **Operations and Algebraic Thinking**, and the *Average Points Earned Across NY* in **Operations and Algebraic Thinking** is 17, then he or she has earned eight more points in **Operations and Algebraic Thinking** than the average student in the state. However, please note that is possible to earn more points than the average Mathematics test taker in the same grade in **Operations and Algebraic Thinking**, and other subscores, and still be considered not proficient.

Mathematics Common Core Domains and Emphasized Clusters	Points Earned By Your Child	Number of Possible Points	Average Points Earned Across NY
Operations and Algebraic Thinking			
Students multiply and divide within 100. Students understand the properties of multiplication and the relationship between multiplication and division. Students solve problems involving the four operations—addition, subtraction, multiplication, and division—and identify and explain patterns in arithmetic.	**25**	**27**	**17**

Note: The scale score and "Points Earned By Your Child" for subscores are provided for illustrative purposes only. All other reported numbers reflect actual state performance.

Table 2. The Domain Subscores and Number of Possible Subscore Points for Mathematics by Grade

Grade	Reporting Categories		
	1	2	3
3	Operations and Algebraic Thinking **27**	Number and Operations—Fractions **12**	Measurement and Data **12**
4	Operations and Algebraic Thinking **11**	Number and Operations in Base Ten **17**	Number and Operations—Fractions **18**
5	Number and Operations in Base Ten **18**	Number and Operations—Fractions **25**	Measurement and Data **10**
6	Ratios and Proportional Relationships **18**	The Number System **12**	Expressions and Equations **28**
7	Ratios and Proportional Relationships **20**	The Number System **14**	Expressions and Equations **22**
8	Expressions and Equations **30**	Functions **19**	Geometry **12**

Note: The scale score and "Points Earned By Your Child" for subscores are provided for illustrative purposes only. All other reported numbers reflect actual state performance.