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## Our Students. Their Moment.

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

**Understanding the Common Core**
**3–8 Mathematics Score Reports**

**August 2015**

THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

# 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 the 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 help students, families, educators, and the public better understand how to interpret the 2015 score reports.

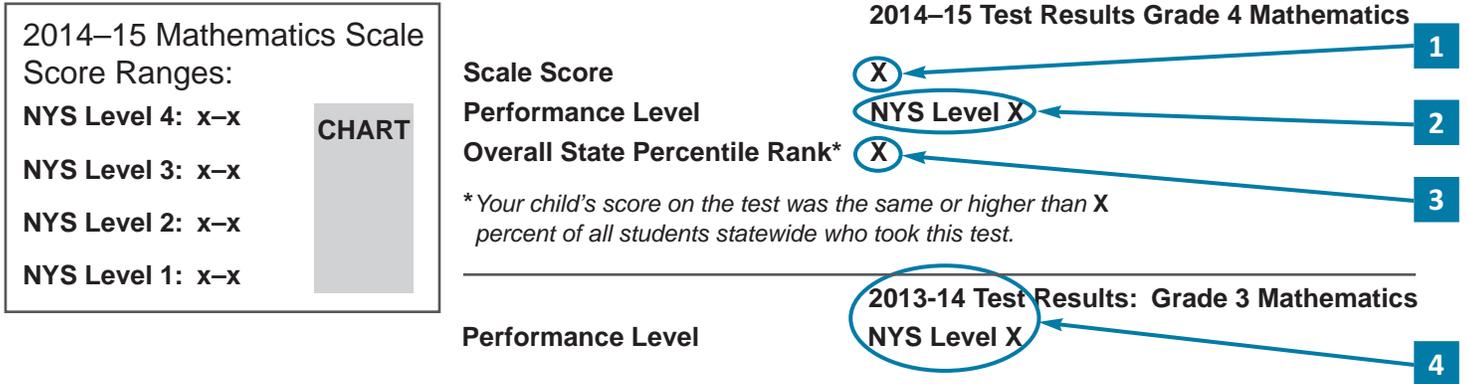## Understanding the Mathematics Score Report

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

After the test, families receive reports that explain how their children performed. This document explains the parts of that score report, and uses a Grade 4 score report as an example. If your child is not in Grade 4, you may notice some differences. These differences are explained in Section 4 of this 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 a 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 how 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. Students whose Performance Level is either NYS Level 1 or NYS Level 2 may be eligible for academic intervention services (AIS) from their schools.

# Your Child's Test Results

2014–15 Mathematics Scale
Score Ranges:

NYS Level 4: x–x

NYS Level 3: x–x

NYS Level 2: x–x

NYS Level 1: x–x

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**2014–15 Test Results Grade 4 Mathematics**

**Scale Score** (X) — 1

**Performance Level** (NYS Level X) — 2

**Overall State Percentile Rank\*** (X) — 3

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

**2013-14 Test Results: Grade 3 Mathematics**

**Performance Level** (NYS Level X) — 4

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**1** ***Scale Score (2014–15):*** The *Scale Score* is determined by the number of points that your child earned on the test in 2014–15. 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 2014–15, 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 2014–15 scale score may be absent from the report if a student completed an insufficient number of questions on the test, was medically excused from the test, 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 | 137–397 | 137–405 | 127–415 | 125–411 | 124–398 | 124–400 |
| Scale Scores Greater than or Equal to this Value are Proficient | 314 | 314 | 319 | 318 | 322 | 322 |

**2** ***Performance Level (2014–15):*** 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 a full description of each performance level, please refer to the bottom of page 1 of the score report. For a detailed description of the skills, knowledge, and practices that are typical of students at each performance level, please visit
https://www.engageny.org/resource/performance-level-descriptions-for-ela-and-mathematics

**3** ***Overall State Percentile Rank (2014–15):*** *Overall State Percentile Rank* compares your child's scale score to those of the rest of the students who took the same subject area test in 2014–15. Percentile ranks are reported on a scale of 1–99. If your child has an *Overall State Percentile Rank* of X, it means that your child's scale score was the same or higher than those of X% of all students who took the same test. The higher the *Overall State Percentile Rank*, the better your child did compared to other students.

**4** *Performance Level (2013–14):* The 2013–14 performance level indicates the performance level that your child achieved on 2013–14 test. The 2013–14 performance level can be compared to the 2014–15 performance level to determine how your child has demonstrated improvement between years. If your child achieved a NYS Level 1 in 2013–14 and then achieved a NYS Level 3 in 2014–15, 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 Grade 3 test will not have a 2013–14 performance level, as there is no assessment in Grade 2.

**6** **7** **8**

## Page 2 – Back Side

| Mathematics Common Core Domains with Emphasized Clusters | Points Earned By Your Child | Number of Possible Points | Average Points Earned Across NY |
|---|---|---|---|
| **Operations and Algebraic Thinking** <br> Students use the four operations—addition, subtraction, multiplication, and division—to solve problems, including solving multistep word problems. Students solve problems using drawings and equations with a symbol for an unknown quantity and interpret remainders. Students also factor whole numbers between 1–100 as well as generate number or shape patterns that follow a given rule. | X | X | X |
| **Number and Operations in Base Ten** <br> Students generalize place-value understanding for multi-digit whole numbers, recognizing that in a multi-digit whole number a digit in one place represents ten times what it represents in the place to its right. Students read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form, and use place-value understanding to round multi-digit whole numbers to any place. | X | X | X |
| **Number and Operations – Fractions** <br> Students find equivalent fractions and compare fractions with the same denominator and with different denominators. Students add and subtract fractions and mixed numbers, multiply a fraction by a whole number, and multiply a fraction by another fraction. Students also solve word problems involving fractions. | X | X | X |

**5**

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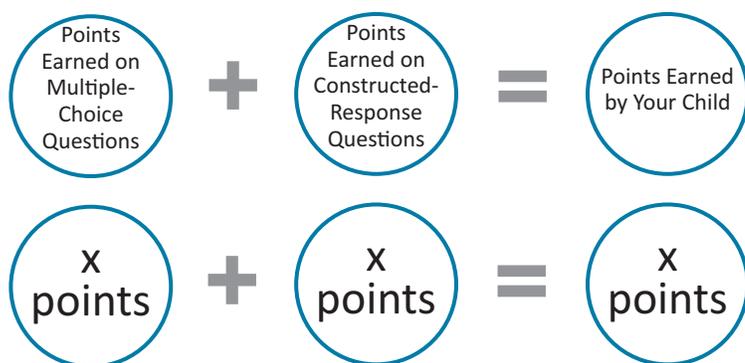
Please refer to the test guides for more information on the specific domains for each grade
https://www.engageny.org/resource/test-guides-for-english-language-arts-and-mathematics

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

*Points Earned By Your Child* on domain subscores represents the number of points that 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 responses 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

x points **+** x points **=** x points

For examples of questions from the 2015 Mathematics tests, please visit
https://www.engageny.org/resource/released-2015-3-8-ela-and-mathematics-state-test-questions

**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 2015 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 X from questions measuring **Operations and Algebraic Thinking** and the *Number of Possible Points* from questions measuring **Operations and Algebraic Thinking** is X, then he or she missed a total of X points in the **Operations and Algebraic Thinking** domain.

| Mathematics Common Core Domains with Emphasized Clusters | Points Earned By Your Child | Number of Possible Points |
|---|---|---|
| **Operations and Algebraic Thinking** Students use the four operations—addition, subtraction, multiplication, and division—to solve problems, including solving multistep word problems. Students solve problems using drawings and equations with a symbol for an unknown quantity and interpret remainders. Students also factor whole numbers between 1–100 as well as generate number or shape patterns that follow a given rule. | X | X |

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

**8** *Average Points Earned Across NY on Domain Subscores:*

The *Average Points Earned Across NY* on domain subscores reports the average number of points earned by students throughout the State in 2015. This number can be used to compare your child's performance to that of the other students who took the Mathematics test in their grade. For example, if your child earned X points in **Operations and Algebraic Thinking**, and the *Average Points Earned Across NY* in **Operations and Algebraic Thinking** is X, then he or she has earned X more points in **Operations and Algebraic Thinking** than the average student in the State. However, please note that it 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 with Emphasized Clusters | Points Earned By Your Child | Number of Possible Points | Average Points Earned Across NY |
|---|---|---|---|
| **Operations and Algebraic Thinking** Students use the four operations—addition, subtraction, multiplication, and division—to solve problems, including solving multistep word problems. Students solve problems using drawings and equations with a symbol for an unknown quantity and interpret remainders. Students also factor whole numbers between 1–100 as well as generate number or shape patterns that follow a given rule. | X | X | X |

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