

# **Common Core Mathematics Test 2019**

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**Grades 3 - 5**

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## **Agenda**

- Introduction
- Testing Sessions
- Question Formats
- Sample Questions
- How to support your child?
- Questions and answers

## Overview

Elementary and middle school students in New York State take yearly state tests in core academic subjects to assess their mastery of the Common Core Learning Standards.

The State **Mathematics Test** will be administered on:

- Wednesday, May 1st
- Thursday, May 2nd

## NYS Math Testing Session

|              | Day 1              | Day 2  |
|--------------|--------------------|--|
| Grade        | # Questions        | # Questions  |
| <b>3</b>     | 25 Multiple Choice | 8 Multiple Choice<br>6 Short Responses<br>1 Extended Responses |
| <b>4 - 5</b> | 30 Multiple Choice | 8 Multiple Choice<br>6 Short Responses<br>1 Extended Response  |

## Mathematics Question Format

**Multiple Choice Questions:** Assess standard algorithms and conceptual standards. Multiple-choice questions incorporate both Standards and Standards for Mathematical Practices, some in real-world applications

**Short-Response Questions:** Requiring students to complete a task and show their work. Like multiple-choice questions, short-response questions often require multiple steps, the application of multiple mathematics skills, and real-world applications.

**Extended-Response Questions:** Asking students to show their work in completing two or more tasks or a more extensive problem. Extended-response questions allow students to show their understanding of mathematical procedures, conceptual understanding, and application.

## Cluster Emphasis

| Cluster Emphasis | Recommended Instructional Time | Approximate Number of Test Points |
|------------------|--------------------------------|-----------------------------------|
| Major            | 65–75%                         | 70–80%                            |
| Supporting       | 15–25%                         | 10–20%                            |
| Additional       | 5–15%                          | 5–10%                             |

# Grade 3

| Cluster Emphasis   | Domain                            | Cluster  | Standard                           |
|--|-----------------------------------|--|------------------------------------|
| Major Clusters   | Operations and Algebraic Thinking | <i>Represent and solve problems involving multiplication and division.</i>   | 3.OA.1                             |
|  |                                   |  | 3.OA.2                             |
|  |                                   |  | 3.OA.3 ✓                           |
|  |                                   |  | 3.OA.4                             |
|  |                                   | <i>Understand the properties of multiplication and the relationship between multiplication and division.</i>                         | 3.OA.5                             |
|  |                                   |  | 3.OA.6                             |
|  |                                   |  | 3.OA.7                             |
|  |                                   |  | 3.OA.8 ✓                           |
|  | Number and Operations – Fractions | <i>Develop understanding of fractions as numbers.</i>  | 3.OA.9                             |
|  |                                   |  | 3.NF.1                             |
|  | 3.NF.2                            |  |                                    |
|  | Measurement and Data              | <i>Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.</i>              | 3.NF.3 ✓                           |
|  |                                   |  | 3.MD.1                             |
|  |                                   |  | 3.MD.2                             |
| <i>Geometric measurement: understand concepts of area and relate area to multiplication and to addition.</i> |                                   | 3.MD.5   |                                    |
|  |                                   | 3.MD.6   |                                    |
| 3.MD.7 ✓   |                                   |  |                                    |
| Supporting Clusters  | Measurement and Data              | <i>Represent and interpret data.</i>   | 3.MD.3                             |
|  | Geometry                          | <i>Reason with shapes and their attributes.</i>  | 3.MD.4 Post<br>3.G.1 Post<br>3.G.2 |
| Additional Clusters  | Number and Operations in Base Ten | <i>Use place value understanding and properties of operations to perform multi-digit arithmetic.</i>                                 | 3.NBT.1                            |
|  |                                   |  | 3.NBT.2                            |
|  |                                   |  | 3.NBT.3                            |
|  | Measurement and Data              | <i>Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.</i> | 3.MD.8 Post                        |

# Grade 4

| Cluster Emphasis   | Domain                            | Cluster  | Standard    |
|--|-----------------------------------|--|-------------|
| Major Clusters   | Operations and Algebraic Thinking | <i>Represent and solve problems involving multiplication and division.</i>   | 4.OA.1      |
|  |                                   |  | 4.OA.2 ✓    |
|  |                                   |  | 4.OA.3      |
|  | Number and Operations in Base Ten | <i>Generalize place value understanding for multi-digit whole numbers.</i>   | 4.NBT.1     |
|  |                                   |  | 4.NBT.2     |
|  |                                   |  | 4.NBT.3     |
|  |                                   |  | 4.NBT.4     |
|  |                                   |  | 4.NBT.5 ✓   |
|  |                                   |  | 4.NBT.6     |
|  | Number and Operations – Fractions | <i>Use place value understanding and properties of operations to perform multi-digit arithmetic.</i>                         | 4.NF.1      |
|  |                                   |  | 4.NF.2      |
|  |                                   | <i>Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</i> | 4.NF.3 ✓    |
|  |                                   |  | 4.NF.4 ✓    |
|  |                                   |  | 4.NF.5 Post |
| <i>Understand decimal notation for fractions, and compare decimal fractions.</i> | 4.NF.6 ✓ Post                     |  |             |
|  | 4.NF.7 ✓ Post                     |  |             |
| Supporting Clusters  | Operations and Algebraic Thinking | <i>Gain familiarity with factors and multiples.</i>  | 4.OA.4      |
|  | Measurement and Data              | <i>Solve problems involving measurements and conversion of measurements from a larger unit to a smaller unit.</i>            | 4.MD.1 Post |
|  |                                   |  | 4.MD.2 Post |
|  |                                   |  | 4.MD.3      |
| 4.MD.4   |                                   |  |             |
| Additional Clusters  | Operations and Algebraic Thinking | <i>Generate and analyze patterns.</i>  | 4.OA.5      |
|  | Measurement and Data              | <i>Geometric measurement: understand concepts of angles and measure angles.</i>  | 4.MD.5      |
|  |                                   |  | 4.MD.6      |
|  |                                   |  | 4.MD.7      |
|  | Geometry                          | <i>Draw and identify lines and angles, and classify shapes by properties of their lines and angles.</i>                      | 4.G.1       |
|  |                                   |  | 4.G.2       |
|  | 4.G.3                             |  |             |

# Grade 5

| Cluster Emphasis    | Domain                            | Cluster  | Standard           |
|---------------------|-----------------------------------|--|--------------------|
| Major Clusters      | Number and Operations in Base Ten | <i>Understand the place value system.</i>  | 5.NBT.1            |
|                     |                                   |  | 5.NBT.2            |
|                     |                                   |  | 5.NBT.3            |
|                     |                                   | <i>Perform operations with multi-digit whole numbers and with decimals to hundredths.</i>                        | 5.NBT.4            |
|                     |                                   |  | 5.NBT.5 ✓          |
|                     |                                   |  | 5.NBT.6 ✓          |
|                     |                                   |  | 5.NBT.7 ✓          |
|                     | Number and Operations – Fractions | <i>Use equivalent fractions as a strategy to add and subtract fractions.</i>                                     | 5.NF.1             |
|                     |                                   |  | 5.NF.2 ✓           |
|                     |                                   | <i>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</i> | 5.NF.3             |
|                     |                                   |  | 5.NF.4             |
|                     |                                   |  | 5.NF.5             |
|                     | Measurement and Data              | <i>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</i> | 5.NF.6 ✓           |
|                     |                                   |  | 5.NF.7 ✓           |
|                     |                                   |  | 5.MD.3             |
| Supporting Clusters | Measurement and Data              | <i>Convert like measurement units within a given measurement system.</i>   | 5.MD.4             |
|                     |                                   | <i>Represent and interpret data.</i>   | 5.MD.5             |
| Additional Clusters | Operations and Algebraic Thinking | <i>Write and interpret numerical expressions.</i>  | 5.MD.1             |
|                     |                                   |  | 5.MD.2             |
|                     |                                   | <i>Analyze patterns and relationships.</i>   | 5.OA.1             |
|                     | Geometry                          | <i>Graph points on the coordinate plane to solve.</i>  | 5.OA.2             |
|                     |                                   | <i>Classify two-dimensional figures into categories based on their properties.</i>                               | 5.OA.3 <i>Post</i> |
|                     |                                   |  | 5.G.1 <i>Post</i>  |
|                     | 5.G.2 <i>Post</i>                 |  |                    |
|                     | 5.G.3                             |  |                    |
|                     | 5.G.4                             |  |                    |

## The 2019 Grades 3–8 Mathematics Tests

### Testing Sessions

The 2019 Grades 3–8 Mathematics Tests consist of two sessions that are administered over two days. Students will be provided as much time as necessary to complete each test session. Below is a table of the average time it will take students to complete each session by grade.

|         | Average Time to Complete Session 1 | Average Time to Complete Session 2 |
|---------|------------------------------------|------------------------------------|
| Grade 3 | 55–65 Minutes                      | 60–70 Minutes                      |
| Grade 4 | 65–75 Minutes                      | 65–75 Minutes                      |
| Grade 5 | 80–90 Minutes                      | 70–80 Minutes                      |

\*Untimed

## **Review Sample Questions**

- Arrange yourselves by grade(s) of your child/children
- You will receive a packet of grade-specific sample Mathematics questions
  - What do you notice?
  - What connections can you make?
- Discuss amongst yourselves
- We will reconvene in approximately 15 minutes

## **How to Help Your Child Prepare**

- Know what the priority work is for your child's grade level
- Push children to develop automaticity with basic math facts by building fluency (prioritize the facts your child finds most difficult)
- Ask questions and review homework to see whether your child understands why as well as what the answer is
- Provide time for your child to work on math skills at home