



Common Core State Standards for Second and Third-Level High School Math Courses

North Carolina Assessment Specifications Summary

North Carolina's Final Exams for Common Core Algebra II, Common Core Geometry, Math II, Math III, and Integrated Math III

Purpose of the Assessments

- The NC Final Exams for Common Core Algebra II, Geometry, Math II, Math III, and Integrated Math III measure students' academic progress in the Common Core State Standards.
- NC Final Exam scores (along with any other relevant end-of-course or end-of-grade assessment scores) will be used in the Educational Value Added Assessment System (EVAAS) to produce student growth measures to satisfy Standards 6 and 8 of the North Carolina Educator Evaluation System.
- NC Final Exams were developed to replace locally developed assessments, providing teachers and principals with a common measure for all students state-wide during a given testing window. School systems will use NC Final Exam scores in determining the student's final grade for each course. The NC Final Exams will count as 20% of the student's final course grade.
- NC Final Exams will NOT be used for school and district accountability under the READY Accountability Model or for Federal reporting purposes.
- For more information on the North Carolina Educator Evaluation System go to <http://www.ncpublicschools.org/effectiveness-model/>.

Curriculum Cycle

- 2010: North Carolina State Board of Education adoption of the *Common Core State Standards*.
- Fall 2012-2013: Item development for the NC Final Exams.
- Fall 2013: First operational administration of the NC Final Exams in Common Core Algebra II, Geometry, Math II, Math III, and Integrated Math III.

Standards

- The *Common Core State Standards* can be viewed at http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf.
- The *Major Work of High School Mathematics* and additional supporting documents can be viewed at <http://macess.ncdpi.wikispaces.net/Major+Work+of+High+School>.

Prioritization of Standards

- Members of the Mathematics Section of the North Carolina Department of Public Instruction (NCDPI) in collaboration with content experts at the Technical Outreach for Public Schools (TOPS) prioritized the *Common Core State Standards* for each high school course. Preliminary weight

distributions across the domains and item types were developed. Subsequently, a group of North Carolinian Math teachers were asked to review the preliminary test specifications for each course and to provide feedback concerning the recommended test specifications. The final weight distributions and item types are shown in Tables 1 through 5.

□ Tables 1 through 5 describe the percentage of score points associated with each content category that will appear on the NC Final Exams.

Table 1. Test Specification Weights for the NC Final Exams in Common Core Math II

| Math II | | |
|----------|--------------------|---------------------|
| Category | Standard | Category Percentage |
| N | N-RN | 2% to 5% |
| A | A-SSE | 26% to 34% |
| | A-APR | |
| | A-CED | |
| | A-REI | |
| F | F-IF | 25% to 31% |
| | F-BF | |
| G | G.CO | 25% to 31% |
| | G-SRT | |
| | G-GPE | |
| | G-MG | |
| | G-GMD | |
| S | S-IC | 7% to 10% |
| | S-CP | |
| | Total Score Points | 100% |

Table 2. Test Specification Weights for the NC Final Exams in Common Core Math III

| Math III | | |
|----------|--------------------|------------|
| Category | Standard | Category |
| N | N-RN | 4% to 7% |
| | N-CN | |
| A | A-SSE | 26% to 34% |
| | A-APR | |
| | A-CED | |
| | A-REI | |
| F | F-IF | 28% to 36% |
| | F-BF | |
| | F-LE | |
| | F-TF | |
| G | G-CO | 24% to 32% |
| | G-SRT | |
| | G-C | |
| | G-GPE | |
| | G-MG | |
| S | S-ID | 4% to 7% |
| | S-IC | |
| | Total Score Points | 100% |

Table 3. Test Specification Weights for the NC Final Exams in Common Core Geometry

| Geometry | | |
|----------|--------------------|------------|
| Category | Standard | Category |
| G | G-CO | 75% to 80% |
| | G-SRT | |
| | G-C | |
| | G-GPE | |
| | G-MG | |
| | G-GMD | |
| N | N-Q | 4% to 7% |
| S | S-CP | 15% to 20% |
| | Total Score Points | 100% |

Table 4. Test Specification Weights for the NC Final Exams in Common Core Algebra II

| Algebra II | | |
|------------|--------------------|------------|
| Category | Standard | Category |
| N | N-RN | 10% to 15% |
| | N-CN | |
| A | A-SSE | 43% to 47% |
| | A-APR | |
| | A.CED | |
| | A-REI | |
| F | F-IF | 30% to 35% |
| | F-BF | |
| | F-LE | |
| | F-TF | |
| S | S-ID | 9% to 13% |
| | S-IC | |
| | Total Score Points | 100% |

Table 5. Test Specification Weights for the NC Final Exams in Common Core Integrated Math III

| Integrated Math III | | |
|---------------------|--------------------|------------|
| Category | Standard | Category |
| A | A-SSE | 33% to 36% |
| | A-APR | |
| | A-CED | |
| | A-REI | |
| F | F-IF | 38% to 41% |
| | F-BF | |
| | F-LE | |
| | F-TF | |
| G | G-GMD | 8% to 12% |
| | G-MG | |
| S | S-ID | 13% to 17% |
| | S-MD | |
| | S-IC | |
| | Total Score Points | 100% |

Cognitive Rigor

Each Common Core standard was classified using Webb's depth of knowledge (DOK) classification scheme. Each item was designed to agree with the DOK of each standard.

Types of Items

The NC Final Exams will contain four-response-option multiple-choice (MC) items and short CR items.

The MC and CR items will align to the *Common Core State Standards* as shown in Tables 1 through 5.

The CR items will require the student to generate a short numeric answer.

Students will be allowed to use graphing calculators for all items.

Graphing paper will be available for all Math NC Final Exams.

Testing Structure and Time

The NC Final Exams will contain 30 to 36 items. Students will be given 120 minutes to answer all test questions. Math II and Math III will contain 2 constructed response items requiring a short numeric answer. Each form will contain some embedded experimental items not used for scoring. Students should monitor the clock to ensure they allow themselves adequate time to respond to all of the test questions.

It is a local decision to determine if the NC Final Exams will be given in one or two class periods.

Delivery Mode

The NC Final Exams are designed for a paper/pencil delivery mode; however, districts may choose to convert to an online delivery mode using their own online administration systems. It is a local decision to determine if the NC Final Exams will be administered either paper/pencil or online.