DESE Logo

**Next-Generation MCAS Test Information for Grade 10 Mathematics**

This document describes the Grade 10 MCAS Math test designs, question types, and other information related to the mathematics tests.

**Standards Assessed**

The Next-Generation MCAS test for Grade 10 Mathematics assesses the standards that overlap between the Model Algebra I and Model Geometry courses and the Model Mathematics I and Model Mathematics II courses in the [2017 Massachusetts Mathematics Curriculum Framework](http://www.doe.mass.edu/frameworks/). For example, the test does not assess standards MII.N.CN.A.1, MII.N.CN.A.2 or MII.N.CN.C.7 because they are not included in either the Model Algebra I or Model Geometry courses. Standards coded with a (+) symbol are not assessed on the MCAS.

**Number of Sessions and Calculator Use**

The Grade 10 Math test has two sessions.

* In Session 1, no calculators are allowed.
* In Session 2, calculators are allowed

**Question Types**

The following table contains information about the question types on the tests.

| **Question Type** | **Total Points** |
| --- | --- |
| Multiple Choice  *Students select one correct answer from among several answer options.* | 1 |
| Multiple Select  *Students select more than one correct answer from among several answer options.* | 1 |
| Technology Enhanced  *Students taking the computer-based tests answer questions using technology such as drag-and-drop and hot spot.* | 1 or 2 |
| Short Answer/Fill-in-the-Blank  *Students construct a short written response, typically only a word or a number.* | 1 |
| Constructed Response  *Students write a response to a multi-part item that includes calculations and explanations to a problem or set of problems.* | 4 |

**Test Design**

The test includes both common and matrix questions. Common questions count toward a student's score, while matrix questions consist of both field-test and equating questions and do not count toward a student's score.

**Common Questions**Students will complete a range of question types as described above. Information about the number of questions by points is in the table below.

| **Number of**  **1- Point Questions** | **Number of**  **2-point Questions** | **Number of Constructed Response Questions** | **Total Points on Test** |
| --- | --- | --- | --- |
| 32 | 6 | 4 | 60 |

The percentages and number of points for each reporting category are in the table below.

| **Reporting Category** | **Percentage**  **(+/-5%)** | **Total Number of Points** |
| --- | --- | --- |
| **Number & Quantity** | 15% | 9 |
| **Algebra & Functions** | 35% | 21 |
| **Geometry** | 35% | 21 |
| **Statistics & Probability** | 15% | 9 |

**Matrix Questions**In addition to common questions, students will answer matrix (field test and equating) questions.

Students will answer ten additional 1- or 2-point questions and two additional constructed-response questions.