

**MCAS Test Information for Grades 3-8 Mathematics**

This document describes the MCAS Math test designs for grades 3-8, including question types, and other information related to the mathematics tests.

**Standards Assessed**

The MCAS Grades 3-8 Mathematics tests are aligned to the [2017 Massachusetts Mathematics Curriculum Framework](http://www.doe.mass.edu/frameworks/).
**Number of Sessions and Calculator Use**

All mathematics tests have two sessions.

Grades 3–6: No calculators are allowed for either session.

Grades 7–8: 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** | **Grade** **Levels** |
| --- | --- | --- |
| Multiple Choice *Students select one correct answer from among several answer options.* | 1 | Grades 3–8 |
| Multiple Select*Students select more than one correct answer from among several answer options.* | 1 | Grades 3–8 |
| Technology Enhanced *Students taking the computer-based tests answer questions using technology such as drag-and-drop and hot spot.*  | 1  | Grade 3 |
| 1 or 2 | Grades 4–8 |
| Short Answer/Fill-in-the-Blank *Students construct a short written response, typically only a word or a number.*  | 1 | Grades 3–8 |
| Constructed Response*Students write a response to a multi-part item that includes calculations and explanations to a problem or set of problems.* |  3 | Grade 3 |
| 4 | Grades 4–8 |

**Test Design**

Each 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.

| **Grade** | **Number of****1- Point Questions** | **Number of****2-point Questions** | **Number of Constructed Response Questions** | **Total Points on Tests** |
| --- | --- | --- | --- | --- |
| 3 | 36 | 0 | 4 | 48 |
| 4-8 | 34 | 2 | 4 | 54 |

The reporting category percentages by grade are in the tables below.

| **Reporting Category Percentages (+/-5%) for Grades 3-5** |
| --- |
|  | **Grade 3** | **Grade 4** | **Grade 5** |
| **Operations & Algebraic Thinking** | 30% | 20% | 15% |
| **Number & Operations in Base Ten** | 15% | 20% | 30% |
| **Number & Operations-Fractions** | 20% | 30% | 25% |
| **Measurement & Data** | 25% | 20% | 20% |
| **Geometry** | 10% | 10% | 10% |

| **Reporting Category Percentages (+/-5%) for Grades 6-7** |
| --- |
|  | **Grade 6** | **Grade 7** |
| **Ratios & Proportional Relationships** | 20% | 20% |
| **The Number System** | 20% | 20% |
| **Expressions & Equations** | 30% | 25% |
| **Geometry** | 15% | 15% |
| **Statistics & Probability** | 15% | 20% |

| **Reporting Category Percentages (+/-5%) for Grade 8** |
| --- |
| **The Number System and Expressions & Equations** | 40% |
| **Functions** | 20% |
| **Geometry** | 30% |
| **Statistics & Probability** | 10% |

**Matrix Questions**

In addition to common questions, students will answer matrix (field test and equating) questions which will vary by grade:

* Students in grades 3 will answer five additional 1-point questions and one additional constructed-response question.
* Students in grades 4–6 will answer five additional 1- or 2-point questions and one additional constructed -response question.
* Students in grades 7–8 will answer six additional 1- or 2-point questions and two additional constructed -response questions.