
Minnesota Test of Academic Skills (MTAS)

Mathematics

Mathematics Achievement
Level Descriptors (ALDs)

Grades 11

October 2013

Minnesota Department of
Education 

Achievement Level Descriptors

The Achievement Level Descriptors (ALDs) provide information about the expected level of student achievement on the Minnesota Academic Standards. Four levels of achievement are described for each grade in which students take Reading, Mathematics and Science statewide assessments. Minnesota administers three assessments in Reading and Mathematics, and two assessments in Science.

Assessment	Who takes it?	Achievement Levels
Minnesota Comprehensive Assessments (MCA) <ul style="list-style-type: none"> • Reading, grades 3-8, 10 • Mathematics, grades 3-8, 11 • Science, grades 5, 8, high school 	The general student population, as well as the majority of students with disabilities	Does Not Meet the Standards Partially Meets the Standards Meets the Standards Exceeds the Standards
Minnesota Comprehensive Assessments-Modified (MCA-Modified) <ul style="list-style-type: none"> • Reading, grades 5-8, 10 10 • Mathematics, grades 5-8, 11 	Students with disabilities who have demonstrated persistently low performance on the MCA and whose Individualized Education Program includes standards-based goals in the subjects assessed.	Does Not Meet the Modified Achievement Standards Partially Meets the Modified Achievement Standards Meets the Modified Achievement Standards Exceeds the Modified Achievement Standards
Minnesota Test of Academic Skills (MTAS) <ul style="list-style-type: none"> • Reading, grades 3-8, 10 • Mathematics, grades 3-8, 11 • Science, grades 5, 8, high school 	Students with significant cognitive disabilities	Does Not Meet the Alternate Achievement Standards Partially Meets the Alternate Achievement Standards Meets the Alternate Achievement Standards Exceeds the Alternate Achievement Standards

The Achievement Level Descriptors are not equivalent across the MCA, the MCA-Modified and the MTAS, and they should not be compared to each other. It is important to remember that the MTAS, based on alternate achievement standards, does not represent the same level of rigor as is found in the MCA or the MCA-Modified. The MTAS is an alternate assessment based on grade-level academic content standards and is developed for students receiving special education services who meet Minnesota's alternate assessment eligibility requirements.

Grade 11 Mathematics MTAS Achievement Level Descriptors

Does Not Meet the Alternate Achievement Standards

Students at this level succeed at few of the most fundamental skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. Some of the skills these students demonstrate inconsistently include the following:

- **Mathematical reasoning skills** such as comparing graphical information; using pictures or illustrations to demonstrate mathematical results; using “and” appropriately in mathematical situations
- **Number sense and computation skills** as embedded in algebra, probability, and geometry
- **Pattern and algebraic thinking skills** such as identifying variables or unknowns; recognizing an equation; identifying linear equations
- **Data and probability skills** such as identifying types of graphs; identifying the number of choices; identifying possible outcomes; identifying maximum or minimum numbers in a data set
- **Spatial, geometry, and measurement skills** such as identifying two-dimensional figures; finding the coordinates of points

Partially Meets the Alternate Achievement Standards

Students at this level succeed at a limited number of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. Some of the skills these students demonstrate commonly include the following:

- **Mathematical reasoning skills** such as comparing graphical information; supporting mathematical results with explanations; recognizing if/then statements
- **Number sense and computation skills** as embedded in algebra, probability, and geometry
- **Pattern and algebraic thinking skills** such as using some appropriate steps to solve for a variable; identifying one of the values of a system of linear equations
- **Data and probability skills** such as answering questions about graphs; indicating the value that is requested or required; determining some combinations; identifying the number of possible outcomes; finding maximum, minimum, and range for data sets
- **Spatial, geometry, and measurement skills** such as identifying two- or three-dimensional figures; identifying parallel lines

Meets the Alternate Achievement Standards

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. Some of the skills these students demonstrate consistently include the following:

- **Mathematical reasoning skills** such as using graphical information to find solutions; supporting mathematical results with explanations; using if/then statements appropriately
- **Number sense and computation skills** as embedded in algebra, probability, and geometry
- **Pattern and algebraic thinking skills** such as finding the value for one variable; identifying both values of a system of simple linear equations
- **Data and probability skills** such as analyzing graphs; counting the number of possible combinations; indicating the probability of an event occurring; finding the maximum, minimum, range, and median or mean in a data set
- **Spatial, geometry, and measurement skills** such as finding the area or perimeter of two-dimensional figures; calculating the slope or distance between two points

Exceeds the Alternate Achievement Standards

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. Some of the skills these students demonstrate very consistently include the following:

- **Mathematical reasoning skills** such as assessing the reasonableness of solutions by using graphical information; supporting mathematical results by explaining the appropriateness of a particular method; understanding the logic of if/then statements
- **Number sense and computation skills** as embedded in algebra, probability, and geometry
- **Pattern and algebraic thinking skills** such as matching corresponding equations to graphs or tables; solving systems of linear inequalities
- **Data and probability skills** such as analyzing graphs; finding the maximum, minimum, range, mean, and median of data sets; calculating the possible number of combinations; indicating the probability of an event occurring as a ratio
- **Spatial, geometry, and measurement skills** such as finding area, perimeter, volume, or surface area of three-dimensional figures; calculating the slope and distance between two points