

**This report best answers:**

- What is each student's raw score, standard score, percentile rank, normal curve equivalent, and stanine on the IAAT? Which of the students may be ready to enroll in Algebra I, with additional data to support the decision? .....
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# Iowa Algebra Aptitude Test: Item Response Report

**Purpose:** This report provides each student's raw score, standard score, national percentile rank, normal curve equivalent, and stanine score for one administration of the IAAT. Student performance by question and test section also displays, with incorrect responses reported. Student results in each section are colored according to the achievement level associated with the student's section score. Data in this report is useful for reviewing the specific questions students missed and conducting a distractor analysis, quickly identifying the top missed questions and the associated distractor responses, and noting any misconceptions present or student learning gaps. Grouping students by stanine and performance on each standard for reteaching, enrichment, and class instruction are also ways to use the data in this report. Additionally, comparing each student's standard score to past or future performance will identify growth in learning. Selecting each student's name displays their individual Section Comparison Report that shows a breakdown of student performance by domain within each part of the IAAT. Results can be used to identify student strengths and weaknesses in math, inform program placement and success in an Algebra I classroom, and create class and student goals.

Home > Reports > Item Response Report

**Report Criteria**

Edit Assessment: GS - IAAT Form A

Edit Course: IA GS Math

Class Average: 82%

Teacher: Harrell, Julia

District: District

School: Middle School 1

**Item Response Report**

GS - IAAT Form A

The Item Response report displays each student's Standard Score, National Percentile Rank, Normal Curve Equivalent, and Stanine Score for the Iowa Algebra Aptitude Test™. Each student's response to each question displays, and the results are highlighted by section according to the student's overall achievement level on that section. Click the "View Larger" icon in the top right corner to view the results for all 60 questions on the assessment. Slide the bar at the bottom of the screen to view all responses. The scores in each column can be sorted. Further, select each student's name to reveal their "Section Comparison Report" that displays their performance by section and the number of items by standard answered correctly. The Printer-Friendly version of reports requires Adobe Acrobat Reader, [click here](#) to download.

Export To Excel   Export To PDF

**10 Assessments Scored / 11 Students Enrolled**

Sections	Part 1									
Question#	1	2	3	4	5	6	7	8	9	
% of Correct Responses										
Measurable Standard										
<small>Correct Answer/Total Items Possible</small>	A	C	A	B	C		800.A.2	8100.A.2	8300.A.2	8100.C.2
							A	C	B	D

● **Report Criteria** – Details the math course, the overall percent correct score averaged for the group, and the school information. Click the "Edit" link to select a different assessment to view in the report.

● **Sections** – Questions on the IAAT are grouped in 4 sections, measuring a student's skills in 4 focused pre-algebra areas.  
**Section 1:** Pre-Algebraic Number Skills and Concepts (questions #1-15)  
**Section 2:** Interpreting Mathematical Information (questions #16-30)  
**Section 3:** Representing Relationships (questions #31-45)  
**Section 4:** Using Symbols (questions #46-60)  
 Hover over a section to reveal the range of scores that designate the color for which the student scores are highlighted in the report.

● **Question#** - Click each question number in the top row to view the question stem, correct answer, three provided distractors, the associated standard, and the strand/domain in which the standard lives.  
**% of Correct Responses** – The percentage of students in the group who answered the associated question correctly.

● **Measurable Standard** – Identifies the standard associated with each question on the IAAT.



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**Student Name** – Click the header to sort the students alphabetically and in reverse order.

Select a student's name to display their individual Section Comparison Report. This report shows a breakdown of student performance by domain within each part of the IAAT. The number of correct and incorrect responses in each completed section also appears. The student's results in each section are colored according to the achievement level in which the score in each section resides. This report can be sent home to parents/guardians or discussed at conferences.

**Student ID and Score** - Click the headers to sort the student IDs and scores in ascending or descending numerical order. The score in this column is the number of questions the student answered correctly (all 4 sections combined), divided by the total number of questions on the *lower Algebra Aptitude Test*.

**Standard Score** – A 3-digit number converted from the raw score, indicating the student's average achievement on a continuum scale. It measures the amount of academic growth year-over-year. The raw score mean corresponds to a normalized standard score of 150.

**NCE** - A score from 1 to 99 (mean of 50), it is a normalized standard score used to determine the student's growth over time. NCE scores correspond to percentile ranks of 1 to 99. Trends can be analyzed from the scores from one year to the next, for the student or group, to note how quickly or slowly the student or group is learning math.

**Stanine Scores** - The student's standard score converted to a normalized score that identifies the status or relative rank of achievement on a bell curve. Stanine is represented as a number between 1 and 9. The stanines are grouped in threes and are noted as achievement "below average" (scores of a 1, 2, or 3), "average" achievement (scores of a 4, 5, or 6), and "above average" (7, 8, or 9).

Student Name	Student ID	Score	Standard Score	Percentile Rank	NCE	Stanine Scores
Brady, Jordan	RSMS11S10G8	53 / 60	176	96	87	9
Bradyhaines, Kayla	RSMS11S1G8	45 / 60	164	82	69	7
Brill, Lauren	RSMS11S2G8	46 / 60	165	84	71	7
Brown, Bonnie	RSMS11S3G8	59 / 60	194	99	99	9
Browngregory, Andreas	RSMS11S4G8	52 / 60	174	95	85	8
Bryant, Jenna	RSMS11S5G8	54 / 60	178	97	90	9
Burch, Cali	RSMS11S6G8	52 / 60	174	95	85	8
Burgarella, Brennan	RSMS11S7G8	39 / 60	158	70	61	6
Busch, Janelle	RSMS11S8G8	54 / 60	178	97	90	9
Byrne, Joshua	RSMS11S9G8	40 / 60	159	73	63	6

Part 1								
1	2	3	4	5	6	7	8	9
90% 5.NF.A.1	90% 6.EE.A.1	90% 5.OA.A.1	80% 5.NF.A.1	60% 4.NF.A.1	80% 6.RP.A.2	80% 4.MD.A.2	90% 4.MD.A.2	70% 6.NS.C.5
A	C	A	B	C	A	C	B	D

**Percentile Rank** - A score of 1-99, converted from the standard score. It shows the student's relative position (or rank) compared to others who took all 4 parts of the IAAT. Percentile ranks are referenced at the national or local level.

The student's response to each question. A letter displayed indicates the student's incorrect answer. Each + indicates that the student answered the question correctly. Hover over a + to reveal each student's score for each section of the IAAT.

**Most Common Distractor** – The most frequent incorrect response among those students who answered the question incorrectly.

**% Students Selecting Distractor** – The percentage of students in the group who responded with the most frequent incorrect response.

### Report access in EdPower:

- Click the "Class Name"
- Click "Reports" (top menu)
- Click "Item Response Report"
- Select the assessment
- Click "Next"
- Expand the view in the upper right corner ("View Larger")
- Export the report to Excel or PDF, if desired



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## Assessment Design:

The *Iowa Algebra Aptitude Test, Fifth Edition* is a standardized, fixed format 4-part multiple choice math assessment that measures a student's math abilities in pre-algebraic number skills & concepts, math information interpretation, relationship representation, and symbol usage. The *IAAT* is designed to help teachers, school counselors, administrators, students, and parents determine the right time for student enrollment in an algebra class so that the student is appropriately challenged, confident, and successful (meaning, earning a C or higher) in a beginner algebra course, without encountering coursework that is beyond their means.

The *IAAT* is typically administered to students in grades 7 & 8, though any student academically ready to begin studying algebra may take it. The online administration of the *IAAT* allows for immediate data and score updates and a clickable dashboard for customized selections.



### Next Reports for Review:

- **Student Report** – Displays the individual student's overall score on the *IAAT*, the achievement level in which the score lives, the student's score compared to proficiency, and the number of questions the student answered correctly by domain. The report can be printed or emailed to parents.
- **Individual Student Performance Report** – Includes the student's overall score on the *IAAT*, the achievement level in which the score lives, and a breakdown of student performance by standard. The number and percentage of questions the student answered correctly for each standard, in comparison to the class average, displays. Standard descriptions and aligned questions are included on the report.
- **Performance Band Report** – Groups the students tested according to their achievement on each domain and standard. Click a colored performance band next to each standard in this report to view a list of students and their scores on the standard. This report includes the standard number assessed and the associated description.
- **Class Scores Report** – Groups the overall student scores on the *IAAT* within a histogram, with scores colored according to the designated achievement level. Each student's individual score and performance, broken down by domain, appears in the lower portion of the report. Click the score and domain headers to sort for analysis purposes. Click a student's name to reveal their Student Report. The Student Report provides the student's overall *IAAT* score compared to Algebra I readiness and performance by domain.



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**Note:**

Administrators can view overall performance of students in all classes or view the report from a teacher's perspective.

**Questions for Investigation:**

- Sort the student stanine scores in descending order. Which students may qualify for Algebra I, with additional data available (class assessments & performance, other normed assessments, & teacher recommendations) to support the decision?
- On which 5-10 questions did the highest percentage of students answer incorrectly? (Review the "% of Correct Responses" row to identify the lowest percentages.) Which distractor was the most frequent response on each of these questions? Click the question number in the top row to view each question and the associated distractors. What misconceptions may need to be addressed, or where are opportunities for reteaching and individual, small group, and/or whole group instruction?
- On which 3 standards did the students perform the highest? What instructional strategies, resources, or programs may have contributed to the success of the high performance? On which 3 standards did the students perform the lowest? What instructional resources, strategies, or programs may be needed or need to be implemented to improve performance in each area? Share with others (if applicable), resources/ ideas for helping particular students master any or all 3 identified standards.
- How can students be sorted for instructional purposes, to improve their performance in a particular standard(s) and on particular questions?



**Key insights**

Teachers and administrators will be able to identify those students most likely ready to enroll in Algebra I, with additional data provided to support the decision. ....

Teachers and administrators will discover the individual questions each student answered correctly and incorrectly, according to each standard assessed. ....

Implementation of distractor analysis for the assessed questions will support instructional groupings and help identify misconceptions for reteaching. ....