



Mathematics
Difficulty
Indicator Cut
Scores

Title	Grade Level	Threshold Level	
		Fall Score	Winter Score
Diagnostic	K	348-366	372-390
		295	320
	1	406-424	430-448
		347	374
	2	473-491	492-510
		419	441
End of Year	3	513-531	529-547
		474	491



i-Ready Mathematics Difficulty Indicator Cut Scores
Instructions

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Specifications

- **Product Name:** i-Ready Mathematics Difficulty Indicator (MDI)
- **Manufacturer:** Curriculum Associates
- **Function:** Identifying students in need of support in mathematics based on diagnostic scores

INSTRUCTION

Using i-Ready Mathematics Difficulty Indicator Cut Scores

The i-Ready Diagnostic is an adaptive assessment specifically designed to identify student strengths and instructional priorities. Students who score below the i-Ready Mathematics Difficulty Indicator (MDI) cut score are on track to being more than one grade level below where they should be by the end of the school year to be considered proficient. Data from the i-Ready Diagnostic for Mathematics can be used with MDI cut scores to determine which students in Grades K–8 may be experiencing a mathematics difficulty. When a student scores below the iMDI cut score, further investigation is warranted. The iMDI alone does not determine whether mathematics difficulties have a developmental or neurobiological basis or are due to other factors. These scores have been used since the 2020–2021 school year; for scores from earlier years, please contact your i-Ready Partner Success team.

iMDI Cut Scores

For districts and schools that want to understand which students need support in mathematics, Curriculum Associates has identified specific i-Ready Diagnostic for Mathematics scores for each testing window and grade. When a student has an overall mathematics score less than the corresponding score shown in the table, that could be an indicator of a possible mathematics difficulty that could require further investigation (see Table 1).

Table 1: Recommended iMDI Cut Scores

Students below these cuts may have math difficulties that require further investigation.

Grade	BOY* Diagnostic/Fall Cut	MOY* Diagnostic/Winter Cut	EOY* Diagnostic/Spring Cut
K	318	334	350
1	347	365	383
2	387	402	416
3	413	427	440
4	434	446	457
5	450	459	468
6	465	472	479
7	480	487	493
8	493	498	503

To gauge the distribution of students who would fall above and below these cut scores for each grade, use the percentile ranking that corresponds to each cut score, based on i-Ready's national norms (see Table 2).

Table 2: Percentile Corresponding to Each IMDI Cut Score

Grade	BOY* Diagnostic/Fall Cut	MOY* Diagnostic/Winter Cut	EOY* Diagnostic/Spring Cut
K	19th	17th	19th
1	18th	17th	23rd
2	33rd	32nd	34th
3	36th	33rd	37th
4	34th	36th	36th
5	35th	34th	36th
6	38th	37th	37th
7	42nd	42nd	42nd
8	48th	46th	48th

BOY = Beginning of Year (Diagnostics completed between the beginning of the school year and November 15);
MOY = Middle of Year (Diagnostics completed between November 16 and March 1); EOY = End of Year
(Diagnostics completed between March 2 and the end of the school year)

How iMDI Cut Scores Were Determined

To determine the iMDI cut scores, Curriculum Associates used the i-Ready scores associated with the Diagnostic grade-level placements and the Typical Growth measures that are part of i-Ready's growth model for Grades K–8. For Grade K:

- EOY Diagnostic/spring cut scores were determined by calculating two standard errors of measurement (i.e., 12 points) below the scale score for Grade K students to be considered on grade level.

- BOY Diagnostic/fall cut scores were determined by subtracting the Typical Growth target for students who placed One Grade Level Below the EOY Diagnostic/spring iMDI cut score.

For Grades 1–8:

- For the BOY Diagnostic/fall cut scores, we looked to the scale score placement tables to identify specific scores for students placing more than One Grade Level Below on the i-Ready Diagnostic for Mathematics.
- EOY Diagnostic/spring cut scores were then calculated based on the Typical Growth made by students who started the academic year Two Grade Levels Below.

Typical Growth measures are differentiated by students' initial placement on the i-Ready Diagnostic. Typical Growth values are shown below for each placement category and grade (see Table 3).

Table 3: i-Ready Diagnostic Typical Growth Targets by Grade and Beginning Placement Level

Grade	On Grade Level (Mid, Late, or Above)	On Grade Level (Early)	One Grade Level Below	Two Grade Levels Below	Three or More Grade Levels Below
K	21	24	32	N/A	N/A
1	21	26	29	36	N/A
2	18	22	26	29	N/A
3	21	25	26	27	30
4	19	23	23	23	24
5	14	18	18	18	20
6	13	13	14	14	15
7	11	12	12	13	13
8	9	9	9	10	12

As an example, students in Grade 1 whose overall scale score on their initial i-Ready Diagnostic is 347 or lower would be considered needing support with mathematics.

- For these students who meet the Typical Growth goal used to calculate the EOY Diagnostic/spring cut for Grade 1 (i.e., 36 points), their spring scale should be $347 + 36 = 383$ points or higher.
- Students below this cut score would still be considered as experiencing a mathematics difficulty. MOY Diagnostic/winter cut scores reflect the midpoint between the fall and spring scores. For the Grade 1 example, the winter cut score is established as follows: $(383 - 347) / 2 = 18$ points; winter cut = $347 + 18 = 365$.

Screening for Specific, Underlying Causes

As noted, the iMDI cut scores indicate that further investigation is warranted to determine why a student is experiencing mathematics difficulties. Once in cut scores have been used to determine which students may be experiencing challenges, educators may use a variety of approaches and tools to understand the underpinning of each student's mathematics difficulties.

This document offers guidance for the 2024–2025 school year. [If you need guidance for the 2023–2024 school](#)


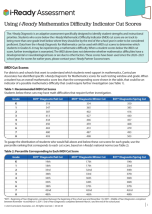
[year](#), it is still available.

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(Curriculum Associates Research Report No. RR 2021-16). North Billerica, MA: Author.

FAQs

- **Q: How are the IMDI cut scores determined?**
 - A: The MDI cut scores are determined based on typical growth measures and students’ initial placement on the i-Ready Diagnostic.
- **Q: What do the BOY, MOY, and EOY abbreviations stand for?**
 - A: BOY stands for Beginning of Year, MOY stands for Middle of Year, and EOY stands for End of Year, referring to different testing periods.

Documents / Resources

	i-Ready Mathematics Difficulty Indicator Cut Scores [pdf] Instructions Mathematics Difficulty Indicator Cut Scores, Mathematics Difficulty Indicator, Indicator Cut Scores, Cut Scores, Scores
	i-Ready Mathematics Difficulty Indicator Cut Scores [pdf] Instructions iMDI Cut Scores, i-Ready Diagnostic, Mathematics Difficulty Indicator Cut Scores, Mathematics Cut Scores, Difficulty Indicator Cut Scores, Cut Scores

References

- [User Manual](#)

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