
Quick Guides for Interpreting the MAPT-CCR for Mathematics Score Reports

In the following pages are the Quick Guides that have been developed to assist in the interpretation of the MAPT-CCR for Mathematics score reports. Four Quick Guides have been developed, and are included here in this order:

- Individual Student Score Report by Content Strand
- Individual Student Score Report by Cognitive Level
- Class Score Report by Content Strand
- Class Score Report by Topic and Cognitive Level

These Quick Guides are also available on the [ACLS Test Help blog](#).

Quick Reference Guide to the MAPT-CCR for Mathematics: Student Score Report by Content Strand

ADULT & COMMUNITY LEARNING SERVICES
MAPT Math: Student Score Report by Content Strand

Fiscal Year: 2018-2019
 Site: [REDACTED]
 Student: [REDACTED]
 Class Title: [REDACTED]

Test Date: Jan 29, 2019
 Test No: Second Test
 Student Score (Score Range): 380 (352 - 407)

MAPT Scale	200 ←-----→ 700
Your Score Range	352 - 407

23 Questions Answered Correctly

Benchmark	Item Dif.
Numbers & Operations: Base Ten	
5.NBT.4	Understand the place value system 399
5.NBT.7	Do operations w/multi-digit whole #s & decimals 388
4.NBT.5	Use place value to perform multi-digit arithmetic 378
5.NBT.7	Do operations w/multi-digit whole #s & decimals 373
5.NBT.5	Do operations w/multi-digit whole #s & decimals 360
2.NBT.6	Use place value & number operations to + and - 324
Operations & Algebraic Thinking and Expressions & Equations	
7.EE.3	Solve problems using expressions & equations 389
4.OA.4	Gain familiarity with factors and multiples 363
3.OA.9	Solve +, -, X & + problems, ID & explain patterns 358
4.OA.4	Gain familiarity with factors and multiples 330
2.OA.1	Represent & solve problems involving + and - 264
Numbers and Operations: Fractions & Ratios & Proportional Relationships	
4.NF.4	Build fractions by applying knowledge of whole #s 364
7.RP.3	Analyze & use proportions to solve problems 349
The Number System	
6.RP.3	Know ratio concepts & use to solve problems 363
6.NS.3	Compute w/multi-digit #s & find common factors 357
Measurement & Data and Statistics & Probability	
4.MD.2	Solve measurement problems, inc. converting units 430
3.MD.1	Solve & estimate time, volume, & mass problems 409
3.MD.3	Represent & interpret data 374
3.MD.1	Solve & estimate time, volume, & mass problems 363
7.SP.6	Develop, use, & evaluate probability models 297
7.SP.5	Develop, use, & evaluate probability models 270
3.MD.1	Solve & estimate time, volume, & mass problems 253
Geometry	
6.G.3	Solve real-world area, surface area & volume probs 382
Functions	

12 Questions Answered Incorrectly

Benchmark	Item Dif.
Numbers & Operations: Base Ten	
5.NBT.4	Understand the place value system 403
Operations & Algebraic Thinking and Expressions & Equations	
4.OA.2	Solve problems using the 4 operations & whole #s 401
6.EE.2	Apply arithmetic to algebraic expressions 385
Numbers and Operations: Fractions & Ratios & Proportional Relationships	
4.NF.4	Build fractions by applying knowledge of whole #s 423
7.RP.2	Analyze & use proportions to solve problems 371
3.NF.1	Develop understanding of fractions as #s. 362
4.NF.6	Understand & compare decimal notation for fractions 345
The Number System	
Measurement & Data and Statistics & Probability	
5.MD.2	Represent and interpret data 411
3.MD.3	Represent & interpret data 403
6.SP.4	Summarize and describe distributions 403
3.MD.3	Represent & interpret data 387
Geometry	
2.G.3	Reason with shapes and their attributes 335
Functions	

1. The header of the report contains basic identifying information as well as the student's MAPT-CCR score and score range, which represents the range of scores we would expect if we tested the student over and over again without additional learning.

2. Below the header is an illustration of the student's score range as it connects to the MAPT-CCR scale.

3. The item difficulty level is a value on the MAPT-CCR scale associated with a 50% chance of answering the item correctly.

4. Every item is aligned to a benchmark in the CCRSAE Standards.

5. Each of the 35 items a student takes will be in one of these columns: Questions Answered Correctly or Questions Answered Incorrectly. MAPT-CCR items are confidential and cannot be included on score reports. Therefore, we report the benchmark measured by each item rather than the item itself.

The items in this report are organized by Content Strand.

To interpret this report

- Note the student's MAPT-CCR score (in this example, 380)
- Note the score range associated with the MAPT-CCR score (in this example, 352-407)

Using this information

- Look for items answered incorrectly with item difficulty values lower than the students' score range (in this example, the last item on the incorrect side and the last item under "Fractions & Ratios & Proportional Relationships"). These were expected to have been easy for the student based on their difficulty level, but were not answered correctly.
- Look also for items answered incorrectly with item difficulty values higher than the student's score range. These were relatively hard for the student given the student's performance and are benchmarks to work on.
- Look for items answered correctly with item difficulty values lower than the student's score range. These were answered correctly and were relatively easy for the student.
- Look for items answered correctly with item difficulty values higher than the student's score range. These were relatively hard for the student given the student's performance, but were answered correctly.

Questions to consider

- How does this information align with what content/skills were taught to students in the class?
- What benchmarks represent material covered that was mastered?

Quick Reference Guide to the MAPT-CCR for Mathematics: Student Score Report by Cognitive Level

ADULT & COMMUNITY LEARNING SERVICES							
MAPT Math: Student Score Report by Cognitive Level							
Fiscal Year:	2018-2019	Test Date:	Sep 20, 2018				
Site:	[REDACTED]	Test No:	First Test				
Student:	[REDACTED]	Student Score (Score Range):	479 (453 - 505)				
Class Title:							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">MAPT Scale</td> <td style="width: 80%;">200<----->700</td> </tr> <tr> <td>Your Score Range</td> <td>453 - 505</td> </tr> </table>		MAPT Scale	200<----->700	Your Score Range	453 - 505		
MAPT Scale	200<----->700						
Your Score Range	453 - 505						
20 Questions Answered Correctly		15 Questions Answered Incorrectly					
4	5	3	2				
Benchmark	Item Dif.	Benchmark	Item Dif.				
Conceptual Understanding		Conceptual Understanding					
5.G.1	Graph coordinate pts to solve real-world problems	504					
4.NF.4	Build fractions by applying knowledge of whole #s	492					
6.NS.6	Apply prior knowledge of #s to rational #s.	490					
6.EE.1	Apply arithmetic to algebraic expressions	477					
4.NF.4	Build fractions by applying knowledge of whole #s	470					
7.SP.5	Develop, use, & evaluate probability models	469					
2.MD.2	Measure and estimate lengths in standard units	465					
Strategic Thinking		Strategic Thinking					
7.G.6	Solve real life & math problems involving geom.	570					
6.EE.9	Represent&analyze quant. relationships btw	469					
3.MD.3	Represent & interpret data	468					
4.OA.4	Gain familiarity with factors and multiples	468					
6.EE.6	Reason & solve 1-variable equations & inequalities	453					
4.MD.2	Solve measurement problems, inc. converting units	451					
5.G.2	Graph coordinate pts to solve real-world problems	443					
Procedural Understanding		Procedural Understanding					
6.NS.6	Apply prior knowledge of #s to rational #s.	540					
7.RP.3	Analyze & use proportions to solve problems	488					
6.SP.5	Summarize and describe distributions	478					
3.MD.3	Represent & interpret data	470					
7.NS.1	Relate +, -, x, + with fractions to rational #s	451					
8.F.5	Model variable relationships using functions	385					
2.G.3	Reason with shapes and their attributes	546					
6.EE.2	Apply arithmetic to algebraic expressions	513					
6.EE.6	Reason & solve 1-variable equations & inequalities	513					
7.NS.1	Relate +, -, x, + with fractions to rational #s	496					
2.MD.10	Represent and interpret data	481					
6.EE.3	Apply arithmetic to algebraic expressions	471					
8.F.5	Model variable relationships using functions	510					
6.RP.3	Know ratio concepts & use to solve problems	500					
5.NF.2	Use equivalent fractions to add & sub fractions	472					
3.MD.7	Grasp area concepts; relate area to add./mult.	552					
6.EE.6	Reason & solve 1-variable equations & inequalities	489					
4.G.1	Draw&identify lines&angles; classify shapes	487					
7.EE.4	Solve problems using expressions & equations	487					
6.NS.3	Compute w/multi-digit #s & find common factors	480					
4.NF.2	Extend understanding of fraction eq. and ordering.	468					

1. The header of the report contains basic identifying information as well as the student's MAPT-CCR score and score range, which represents the range of scores we would expect if we tested the student over and over without additional learning.

2. Below the header is an illustration of the student's score range as it connects to the MAPT-CCR scale.

3. The item difficulty level is a value on the MAPT-CCR scale associated with a 50% chance of answering the item correctly.

4. Every item is aligned to a benchmark in the CCRSAE Standards.

5. Each of the 35 items a student takes will be in one of these columns: Questions Answered Correctly or Questions Answered Incorrectly. MAPT-CCR items are confidential and cannot be included on score reports. Therefore, we report the benchmark measured by each item rather than the item itself.

The items in this report are organized by Cognitive Level.

To interpret this report

- Note the student's MAPT-CCR score (in this example, 479)
- Note the score range associated with the MAPT-CCR score (in this example, 453-505)

Using this information

- Look for items answered incorrectly with item difficulty values lower than the students' score range (there are no such items in the sample report). These were expected to have been easy for the student based on their difficulty level, but were not answered correctly.
- Look also for items answered incorrectly with item difficulty values higher than the student's score range. These were relatively hard for the student given the student's performance and are benchmarks to work on.
- Look for items answered correctly with item difficulty values lower than the student's score range. These were answered correctly and were relatively easy for the student.
- Look for items answered correctly with item difficulty values higher than the student's score range. These were relatively hard for the student given the student's performance, but were answered correctly.

Questions to consider

- How does this information align with what content/skills were taught to students in the class?
- What benchmarks represent material covered that was mastered?

Quick Reference Guide to the MAPT-CCR for Mathematics: Class Score Report by Content Strand

1. The header of the report contains identifying information about the class. Note that in a given class, the number of students may not equal the number of tests recorded because individual students may have taken the test multiple times within the same fiscal year.

2. Each item on the MAPT-CCR is mapped to the MAPT-CCR scale, and so falls into one of five score ranges.

MAPT Math Class Score Report by Content Strand

Fiscal Year: 2018-2019
 Site: [REDACTED]
 Class Title: [REDACTED]
 Number of Students: 7
 Number of Tests: 8
 Report Date: 05/10/2019

1

Content Strand	200-299		300-399		400-499		500-599		600-700	
	# Student Responses	% Correct	# Student Responses	% Correct	# Student Responses	% Correct	# Student Responses	% Correct	# Student Responses	% Correct
F			6	100%			8	75%	1	0%
G	1	100%	1	100%	18	78%	16	50%	1	0%
MD&SP	1	100%	4	100%	39	79%	11	36%		
NBT	1	100%	1	100%						
NF&RP	1	100%	2	100%	38	58%	2	0%		
NS					20	60%	15	47%		
OA&EE	2	100%	3	100%	58	62%	11	9%	1	0%
Total	6	71%	17	86%	173	48%	63	31%	3	0%

2

3

Note: Total Sums the number of student responses based on the total number of student-item combinations

Number of Items per Difficulty Level Seen by Students

200-299	300-399	400-499	500-599	600-700
6	12	73	27	3

3. The “# Student Responses” and “% Correct” columns present information about how many student responses were provided, and the percent of these that were correct. Within each cell, these may or may not represent the same item seen by more than one student, or different items seen by different students.

The items in this report are organized by **Content Strand**.

To interpret this report

- Note the Difficulty Range of Items (along the top of the table)
- Identify a Content Strand you want to look at:
 - Numbers and Operations: Base Ten (NBT)
 - Operations & Algebraic Thinking (OA) and Expressions & Equations (EE)
 - Numbers & Operations: Fractions (NF) and Ratios & Proportional Relationships (RP)
 - The Number System (NS)
 - Geometry (G)
 - Measurement & Data (MD) and Statistics & Probability (SP)
 - Functions (F)
- Note the number of student responses and the percent of these that were answered correctly for the cell you are interested in.

Using this information

- If the number of student responses is less than 5, be aware that this is a relatively small number of items and any conclusions to be drawn are likely to be unreliable.
- Where the number of student responses is greater than 5, look at the percent correct.
 - If the percent correct is high, that represents higher numbers of correct answers to those items in that difficulty range and greater mastery of skills among members of the class as a group.
 - If the percent correct is low, that represents lower numbers of correct answers to those items in that difficulty range and a lower degree of mastery of skills among members of the class as a group.

Quick Reference Guide to the MAPT-CCR for Mathematics: Class Score Report by Topic and Cognitive Level

1. The header of the report contains identifying information about the class. Note that in a given class, the number of students may not equal the number of tests recorded because individual students may have taken the test multiple times within the same fiscal year.

2. Each item on the MAPT-CCR is mapped to the MAPT-CCR scale, and so falls into one of five score ranges.

Fiscal Year: 2018-2019
 Site:
 Class Title:
 Number of Students: 7
 Number of Tests: 8
 Report Date: 05/10/2019

Cognitive Levels	200-299		300-399		400-499		500-599		600-700	
	# Student Responses	% Correct	# Student Responses	% Correct	# Student Responses	% Correct	# Student Responses	% Correct	# Student Responses	% Correct
Conceptual Understanding	2	100%	3	100%	53	64%	35	37%	2	0%
Procedural Understanding	3	100%	10	100%	70	64%	15	40%	1	0%
Strategic Thinking	1	100%	4	100%	50	72%	13	54%		
Total	6	100%	17	100%	173	67%	63	44%	3	0%

Number of Items per Difficulty Level Seen by Students

200-299	300-399	400-499	500-599	600-700
6	12	73	27	3

3. The “# Student Responses” and “% Correct” columns present information about how many student responses were provided, and the percent of these that were correct. Within each cell, these may or may not represent the same item seen by more than one student, or different items seen by different students.

The items in this report are organized by Topic and Cognitive Level.

To interpret this report

- Note the Difficulty Range of Items (along the top of the table)
- Identify a cognitive level you want to look at:
 - Conceptual Understanding
 - Procedural Understanding
 - Strategic Thinking
- Note the number of student responses and the percent of these that were answered correctly for the cell you are interested in.

Using this information

- If the number of student responses is less than 5, be aware that this is a relatively small number of items and any conclusions to be drawn are likely to be unreliable.
- Where the number of student responses is greater than 5, look at the percent correct.
 - If the percent correct is high, that represents higher numbers of correct answers to those items in that difficulty range and greater mastery of skills among members of the class as a group.
 - If the percent correct is low, that represents lower numbers of correct answers to those items in that difficulty range and a lower degree of mastery of skills among members of the class as a group.