# Test Specifications for the Massachusetts Adult Proficiency Test for Mathematics College and Career Readiness (MAPT-CCR for Mathematics) 

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This document is adapted from the MAPT-CCR Technical Manual, available here.

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## Background

The goal in creating the test specifications for the MAPT-CCR for Mathematics was to involve AE teachers and leaders in the field who are familiar with current mathematics standards and how they should be taught to adult learners in Massachusetts. Mathematics specialists and those who are familiar with how mathematics is defined in the Common Core State Standards (CCSS) were also included. This was accomplished by convening a MAPT-CCR for Mathematics Test Specifications Advisory Committee comprising three members, and a MAPTCCR for Mathematics Test Specifications Development Committee comprising seven members.

The operational MAPT-CCR for Mathematics Test Specifications (Tables 1 through 5) were finalized in 2016 and reflect the Committee members' deliberations and reviews.

Table 1
Test Specifications for MAPT-CCR for Mathematics Level 2 (EFL Beginning Basic, GLE 2-3)

| Domain Groups | Cognitive Components |  |  | Total |
| :--- | :---: | :---: | :---: | :---: |
|  | Recall | Skill / <br> Concept | Strategic <br> Thinking |  |
| Numbers and Operations: Base Ten (NBT) | $7.5 \%-10 \%$ | $7.5 \%-10 \%$ | $5 \%-7.5 \%$ | $25 \%$ |
| Operations and Algebraic Thinking (OA) | $7.5 \%-10 \%$ | $7.5 \%-10 \%$ | $5 \%-7.5 \%$ | $25 \%$ |
| Numbers and Operations: Fractions (NF) | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $10 \%$ |
| The Number System (NS) |  |  |  |  |
| Geometry (G) | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $10 \%$ |
| Measurement and Data (MD) | $10 \%-12.5 \%$ | $10 \%-12.5 \%$ | $7.5 \%-10 \%$ | $30 \%$ |
| Functions (F) |  |  |  |  |
|  |  | $35 \%$ | $35 \%$ | $30 \%$ |

Table 2
Specifications for MAPT-CCR for Mathematics Level 3 (EFL Low Intermediate, GLE 4-5)

| Domain Groups | Cognitive Components |  |  | Total (\%) |
| :--- | :---: | :---: | :---: | :---: |
|  | Recall | Skill / <br> Concept | Strategic <br> Thinking |  |
| Numbers and Operations: Base Ten (NBT) | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $2.5 \%-5 \%$ | $15 \%$ |
| Operations and Algebraic Thinking (OA) and <br> Expressions and Equations (EE) | $7.5 \%-10 \%$ | $7.5 \%-10 \%$ | $5 \%-7.5 \%$ | $25 \%$ |
| Numbers and Operations: Fractions (NF) and <br> Ratios and Proportional Relationships (RP) | $7.5 \%-10 \%$ | $7.5 \%-10 \%$ | $5 \%-7.5 \%$ | $25 \%$ |
| The Number System (NS) | $0 \%-2.5 \%$ | $0 \%-2.5 \%$ | $0 \%-2.5 \%$ | $5 \%$ |
| Geometry (G) | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $10 \%$ |
| Measurement and Data (MD) and Statistics <br> and Probability (SP) | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $20 \%$ |
| Functions (F) |  |  |  |  |
|  |  | $35 \%$ | $35 \%$ | $30 \%$ |

Table 3
Specifications for MAPT-CCR for Mathematics Level 4 (EFL Middle Intermediate, GLE 6-7)

| Domain Groups | Cognitive Components |  |  | Total |
| :--- | :---: | :---: | :---: | :---: |
|  | Recall | Skill / <br> Concept | Strategic <br> Thinking |  |
| Numbers and Operations: Base Ten (NBT) |  |  |  |  |
| Expressions and Equations (EE) | $5 \%-7.5 \%$ | $7.5 \%-10 \%$ | $7.5 \%-10 \%$ | $25 \%$ |
| Ratios and Proportional Relationships (RP) | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $10 \%$ |
| The Number System (NS) | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $20 \%$ |
| Geometry (G) | $2.5 \%-5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $15 \%$ |
| Statistics and Probability (SP) | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $20 \%$ |
| Functions (F) | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $2.5 \%-5 \%$ | $10 \%$ |
|  | Total | $30 \%$ | $35 \%$ | $35 \%$ |

Table 4
Specifications for MAPT-CCR for Mathematics Level 5 (EFL High Intermediate, GLE 8-9)

| Domain Groups | Cognitive Components |  |  | Total |
| :--- | :---: | :---: | :---: | :---: |
|  | Recall | Skill / <br> Concept | Strategic <br> Thinking |  |
| Numbers and Operations: Base Ten (NBT) |  |  |  |  |
| Expressions and Equations (EE) | $7.5 \%-10 \%$ | $10 \%-12.5 \%$ | $10 \%-12.5 \%$ | $30 \%$ |
| Ratios and Proportional Relationships (RP) |  |  |  |  |
| The Number System (NS) | $2.5 \%-5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $15 \%$ |
| Geometry (G) | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $20 \%$ |
| Statistics and Probability (SP) | $2.5 \%-5 \%$ | $7.5 \%-10 \%$ | $7.5 \%-10 \%$ | $20 \%$ |
| Functions (F) | $2.5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $15 \%$ |
|  | $30 \%$ | $35 \%$ | $35 \%$ | $100 \%$ |

Table 5
Specifications for MAPT-CCR for Mathematics Level 6 (EFL Adult Secondary, GLE 9-12.9)

| Domain Groups | Cognitive Components |  |  | Total |
| :--- | :---: | :---: | :---: | :---: |
|  | Recall | Skill / <br> Concept | Strategic <br> Thinking |  |
| Numbers and Operations: Base Ten (NBT) |  |  |  |  |
| Expressions and Equations (EE) | $7.5 \%-10 \%$ | $10 \%-15 \%$ | $10 \%-15 \%$ | $35 \%$ |
| Ratios and Proportional Relationships (RP) |  |  |  |  |
| The Number System (NS) | $2.5 \%-5 \%$ | $2.5 \%-7.5 \%$ | $2.5 \%-7.5 \%$ | $10 \%$ |
| Geometry (G) | $2.5 \%-7.5 \%$ | $2.5 \%-7.5 \%$ | $2.5 \%-7.5 \%$ | $15 \%$ |
| Statistics and Probability (SP) | $2.5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $20 \%$ |
| Functions (F) | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $5 \%-7.5 \%$ | $20 \%$ |
|  | $25 \%$ | $35 \%$ | $40 \%$ | $100 \%$ |

