

**California Department of Education Assessment Development & Administration Division**



# California Assessment of Student Performance and Progress Smarter Balanced Summative Assessment 2022–23 Technical Report

## Chapter 4 Appendices

**Final Submitted March 19, 2024**

**By ETS**



**Contract No. CN220002**

Table of Contents

[Appendix 4.A: Smarter Balanced Test Blueprints 1](#_Toc135639748)

[Appendix 4.B: Performance Task Test Length 12](#_Toc135639749)

[Appendix 4.C: Item Distribution 13](#_Toc135639750)

List of Tables

[Table 4.A.1 Smarter Balanced Summative Assessment for ELA Adjusted-Form Blueprint: Number of Items by Claim 1](#_Toc156288390)

[Table 4.A.2 Smarter Balanced Summative Assessment for ELA Full-Form Blueprint: Number of Items by Claim 1](#_Toc156288391)

[Table 4.A.3 Smarter Balanced Summative Assessment for ELA Adjusted-Form Blueprint with Embedded Field Test PT: Number of Items by Claim 1](#_Toc156288392)

[Table 4.A.4 Smarter Balanced Summative Assessment for Mathematics Adjusted-Form Blueprint: Number of Items by Claim 2](#_Toc156288393)

[Table 4.A.5 Smarter Balanced Summative Assessment for Mathematics Full-Form Blueprint: Number of Items by Claim 2](#_Toc156288394)

[Table 4.A.6 Smarter Balanced Summative Assessment for Mathematics Adjusted-Form Blueprint with Embedded Field Test PT: Number of Items by Claim 2](#_Toc156288395)

[Table 4.A.7 Blueprint Table—ELA/Literacy, Grades Three Through Five 3](#_Toc156288396)

[Table 4.A.8 Blueprint Table—ELA/Literacy, Adjusted Form, Grades Three Through Five 4](#_Toc156288397)

[Table 4.A.9 Blueprint Table—ELA/Literacy, Grades Six Through Eight 5](#_Toc156288398)

[Table 4.A.10 Blueprint Table—ELA/Literacy, Adjusted Form, Grades Six Through Eight 6](#_Toc156288399)

[Table 4.A.11 Blueprint Table—ELA/Literacy, Grade Eleven 7](#_Toc156288400)

[Table 4.A.12 Blueprint Table—ELA/Literacy, Adjusted Form, Grade Eleven 8](#_Toc156288401)

[Table 4.A.13 Blueprint Table—Mathematics, Grades Three Through Five 9](#_Toc156288402)

[Table 4.A.14 Blueprint Table—Mathematics, Adjusted Form, Grades Three Through Five 9](#_Toc156288403)

[Table 4.A.15 Blueprint Table—Mathematics, Grades Six Through Eight 10](#_Toc156288404)

[Table 4.A.16 Blueprint Table—Mathematics, Adjusted Form, Grades Six Through Eight 10](#_Toc156288405)

[Table 4.A.17 Blueprint Table—Mathematics, Grade Eleven 11](#_Toc156288406)

[Table 4.A.18 Blueprint Table—Mathematics, Adjusted Form, Grade Eleven 11](#_Toc156288407)

[Table 4.B.1 Assignment Proportions for ELA 12](#_Toc156288408)

[Table 4.C.1 Summary of Items Presented for the Total Assessment 13](#_Toc156288409)

[Table 4.C.2 Summary of Items Presented in the CAT Component of the Assessment 13](#_Toc156288410)

[Table 4.C.3 Summary of Items Presented in the PT Component of the Assessment 14](#_Toc156288411)

[Table 4.C.4 Percent of Students Meeting Blueprint 15](#_Toc156288412)

[Table 4.C.5 Percent of Students Meeting Embedded Field Test Blueprint 16](#_Toc156288413)

### Appendix 4.A: Smarter Balanced Test Blueprints

**Note:** In table 4.A.1 and table 4.A.2, an asterisk (\*) indicates where a PT full-write item is counted as three items.

Table 4.A.1 Smarter Balanced Summative Assessment for ELA Adjusted-Form Blueprint: Number of Items by Claim

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim** | **Grades 3–5 CAT** | **Grades 3–5 PT** | **Grades 6–8 CAT** | **Grades 6–8 PT** | **Grade 11 CAT** | **Grade 11 PT** |
| 1. Reading | 8 | 0 | 10 | 0 | 10 | 0 |
| 2. Writing | 4 | 3 | 4 | 3 | 4 | 3 |
| 3. Speaking/Listening | 4 | 0 | 4 | 0 | 4 | 0 |
| 4. Research | 4 | 1 | 4 | 1 | 4 | 1 |
| **Total:** | **20** | **4\*** | **22** | **4\*** | **22** | **4\*** |

Table 4.A.2 Smarter Balanced Summative Assessment for ELA Full-Form Blueprint: Number of Items by Claim

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim** | **Grades 3–5 CAT** | **Grades 3–5 PT** | **Grades 6–8 CAT** | **Grades 6–8 CAT** | **Grade 11 CAT** | **Grade 11 PT** |
| 1. Reading | 14–16 | 0 | 14–17 | 0 | 15–16 | 0 |
| 2. Writing | 6 | 3 | 6 | 3 | 6 | 3 |
| 3. Speaking/Listening | 8–9 | 0 | 8–9 | 0 | 8–9 | 0 |
| 4. Research | 8 | 1 | 8 | 1 | 8 | 1 |
| **Total:** | **36–39** | **4\*** | **36–40** | **4\*** | **37–39** | **4\*** |

Table 4.A.3 Smarter Balanced Summative Assessment for ELA Adjusted-Form Blueprint with Embedded Field Test PT: Number of Items by Claim

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim** | **Grades 3–5 CAT** | **Grades 3–5 PT** | **Grades 6–8 CAT** | **Grades 6–8 PT** | **Grade 11 CAT** | **Grade 11 PT** |
| 1. Reading | 8 | 0 | 10 | 0 | 10 | 0 |
| 2. Writing | 7 | 0 | 7 | 0 | 7 | 0 |
| 3. Speaking/Listening | 4 | 0 | 4 | 0 | 4 | 0 |
| 4. Research | 5 | 0 | 5 | 0 | 5 | 0 |
| **Total:** | **24** | **0** | **26** | **0** | **26** | **0** |

Table 4.A.4 Smarter Balanced Summative Assessment for Mathematics Adjusted-Form Blueprint: Number of Items by Claim

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim** | **Grades 3–5, 7, 8 CAT** | **Grades 3–5, 7, 8 PT** | **Grade 6 CAT** | **Grade 6 PT** | **Grade 11 CAT** | **Grade 11 PT** |
| 1. Concepts and Procedures | 10 | 0 | 9–10 | 0 | 11 | 0 |
| 2. Problem Solving | 1 | 1–2 | 1 | 1–2 | 1 | 1–2 |
| 3. Communicating Reasoning | 4 | 0–2 | 4 | 0–2 | 4 | 0–2 |
| 4. Modeling and Data Analysis | 2 | 1–3 | 2 | 1–3 | 2 | 1–3 |
| **Total:** | **17** | **4–6** | **16–17** | **4–6** | **18** | **4–6** |

Table 4.A.5 Smarter Balanced Summative Assessment for Mathematics Full-Form Blueprint: Number of Items by Claim

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim** | **Grades 3–5, CAT** | **Grades 3–5, PT** | **Grades 6–8, CAT** | **Grades 6–8, PT** | **Grade 11 CAT** | **Grade 11 PT** |
| 1. Concepts and Procedures | 17–20 | 0 | 16–20 | 0 | 19–22 | 0 |
| 2. Problem Solving | 3 | 1–2 | 3 | 1–2 | 3 | 1–2 |
| 3. Communicating Reasoning | 8 | 0–2 | 8 | 0–2 | 8 | 0–2 |
| 4. Modeling and Data Analysis | 3 | 1–3 | 3 | 1–3 | 3 | 1–3 |
| **Total:** | **31–34** | **4–6** | **30–34** | **4–6** | **33–36** | **4–6** |

Table 4.A.6 Smarter Balanced Summative Assessment for Mathematics Adjusted-Form Blueprint with Embedded Field Test PT: Number of Items by Claim

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim** | **Grades 3–5 CAT** | **Grades 3–5 PT** | **Grades 6–8 CAT** | **Grades 6–8 PT** | **Grade 11 CAT** | **Grade 11 PT** |
| 1. Concepts and Procedures | 10 | 0 | 9–10 | 0 | 11 | 0 |
| 2. Problem Solving and 4. Modeling and Data Analysis | 5 | 0 | 5 | 0 | 5 | 0 |
| 3. Communicating Reasoning | 4 | 0 | 4 | 0 | 4 | 0 |
| **Total:** | **19** | **0** | **18–19** | **0** | **20** | **0** |

##### English Language Arts/Literacy Summative Assessments Blueprint

Note the following about table 4.A.7 and table 4.A.8:

* Each student receives an overall ELA/literacy score.
* For more information on content categories, refer to the Content Specifications document on the Smarter Balanced website.
* Each student receives one PT, which includes a set of stimuli on a given topic.
* The computer adaptive test (CAT) component of the assessment includes only machine-scored items.
* Each PT includes one research item which may be a machine-scored item or a short-text item. Each PT also has one full write that is scored across three traits: organization/‌purpose, evidence/elaboration, and conventions. Short-text and full-write items are designed for hand scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand scoring.
* For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three traits.
* Total items for Claim 2 include six CAT items and three items from the PT as described in the preceding item.

Table 4.A.7 Blueprint Table—ELA/Literacy, Grades Three Through Five

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Reading | Literary | 2 | 0 | 7–8 | 0 | 14–16 |
| 1. Reading | Informational | 2 | 0 | 7–8 | 0 | 14–16 |
| 2. Writing | Organization/Purpose | 0 | 1a | 3a | 1 | 9 |
| 2. Writing | Evidence/Elaboration | 0 | 1a | 3a | 1 | 9 |
| 2. Writing | Conventions | 0 | 1a | 3b | 1 | 9 |
| 3. Speaking/‌Listening | Listening | 3–4 | 0 | 8–9 | 0 | 8–9 |
| 4. Research | Research | 0 | 1b | 8 | 1 | 9 |

Table 4.A.8 Blueprint Table—ELA/Literacy, Adjusted Form, Grades Three Through Five

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Reading | Literary | 1 | 0 | 4 | 0 | 8 |
| 1. Reading | Informational | 1 | 0 | 4 | 0 | 8 |
| 2. Writing | Organization/Purpose | 0 | 1a | 3a | 1 | 7 |
| 2. Writing | Evidence/Elaboration | 0 | 1a | 3a | 1 | 7 |
| 2. Writing | Conventions | 0 | 1a | 3b | 1 | 7 |
| 3. Speaking/‌Listening | Listening | 2 | 0 | 4 | 0 | 4 |
| 4. Research | Research | 0 | 1b | 4 | 1 | 5 |

Note the following about table 4.A.9 and table 4.A.10:

* Each student receives an overall ELA/literacy score.
* For more information on content categories, refer to the Content Specifications document on the Smarter Balanced website.
* Each student receives one PT, which includes a set of stimuli on a given topic.
* The CAT component of the assessment includes machine-scored items and short-text items. Up to two short-text items in Reading and one short-text item in Writing are designed for hand scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand scoring.
* Each PT includes one research item which may be a machine-scored item or a short-text item. Each PT also has one full write that is scored across three traits: organization/‌purpose, evidence/elaboration, and conventions. Short-text and full-write items are designed for hand scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand scoring.
* For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three traits.
* Total items for Claim 2 includes six CAT items and three items from the PT as described in the preceding item.

Table 4.A.9 Blueprint Table—ELA/Literacy, Grades Six Through Eight

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Reading | Literary | 1–2 | 0 | 4–7 | 0 | 14–17 |
| 1. Reading | Informational | 2–3 | 0 | 10–12 | 0 | 14–17 |
| 2. Writing | Organization/Purpose | 0 | 1a | 3a | 1 | 9 |
| 2. Writing | Evidence/Elaboration | 0 | 1a | 3a | 1 | 9 |
| 2. Writing | Conventions | 0 | 1a | 3b | 1 | 9 |
| 3. Speaking/‌Listening | Listening | 3−4 | 0 | 8−9 | 0 | 8−9 |
| 4. Research | Research | 0 | 1b | 8 | 1 | 9 |

Table 4.A.10 Blueprint Table—ELA/Literacy, Adjusted Form, Grades Six Through Eight

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Reading | Literary | 1 | 0 | 4 | 0 | 10 |
| 1. Reading | Informational | 2 | 0 | 6 | 0 | 10 |
| 2. Writing | Organization/Purpose | 0 | 1a | 3a | 1 | 7 |
| 2. Writing | Evidence/Elaboration | 0 | 1a | 3a | 1 | 7 |
| 2. Writing | Conventions | 0 | 1a | 3b | 1 | 7 |
| 3. Speaking/‌Listening | Listening | 2 | 0 | 4 | 0 | 4 |
| 4. Research | Research | 0 | 1b | 4 | 1 | 5 |

Note the following about table 4.A.11 and table 4.A.12:

* Each student receives an overall ELA/literacy score.
* For more information on content categories, refer to the Content Specifications document on the Smarter Balanced website.
* Each student receives one PT, which includes a set of stimuli on a given topic.
* The CAT component of the assessment includes machine-scored items and short-text items. One or two short-text items in Reading and one short-text item in Writing are designed for hand scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand scoring.
* Each PT includes one research item which may be a machine-scored item or a short-text item. Each PT also has one full write that is scored across three traits: organization/purpose, evidence/elaboration, and conventions. Short-text and full-write items are designed for hand scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand scoring.
* For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three distinct traits.
* Total items for Claim 2 includes six CAT items and three items from the PT as described in the preceding item.

Table 4.A.11 Blueprint Table—ELA/Literacy, Grade Eleven

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Reading | Literary | 1 | 0 | 4 | 0 | 15−16 |
| 1. Reading | Informational | 3 | 0 | 11−12 | 0 | 15−16 |
| 2. Writing | Organization/Purpose | 0 | 1a | 3a | 1 | 9 |
| 2. Writing | Evidence/Elaboration | 0 | 1a | 3a | 1 | 9 |
| 2. Writing | Conventions | 0 | 1a | 3b | 1 | 9 |
| 3. Speaking/‌Listening | Listening | 3−4 | 0 | 8−9 | 0 | 8−9 |
| 4. Research | Research | 0 | 1b | 8 | 1 | 9 |

Table 4.A.12 Blueprint Table—ELA/Literacy, Adjusted Form, Grade Eleven

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Reading | Literary | 1 | 0 | 4 | 0 | 10 |
| 1. Reading | Informational | 2 | 0 | 6 | 0 | 10 |
| 2. Writing | Organization/Purpose | 0 | 1a | 3a | 1 | 7 |
| 2. Writing | Evidence/Elaboration | 0 | 1a | 3a | 1 | 7 |
| 2. Writing | Conventions | 0 | 1a | 3b | 1 | 7 |
| 3. Speaking/‌Listening | Listening | 2 | 0 | 4 | 0 | 4 |
| 4. Research | Research | 0 | 1b | 4 | 1 | 5 |

##### Mathematics Summative Assessments Blueprint

Note the following about table 4.A.13 and table 4.A.14:

* For more information on content categories, refer to the Content Specifications document on the Smarter Balanced website.
* All CAT items in grades three through five are designed to be machine-scored.
* Each PT contains four to six total items. Up to four PT items may require hand scoring.
* Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined because of content similarity and to provide flexibility for item development.

Table 4.A.13 Blueprint Table—Mathematics, Grades Three Through Five

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Concepts and Procedures | Priority Cluster | 0 | 0 | 13–15 | 0 | 17–20 |
| 1. Concepts and Procedures | Supporting Cluster | 0 | 0 | 4–5 | 0 | 17–20 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Problem Solving | 0 | 1 | 6 | 2–4 | 8–10 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Modeling and Data Analysis | 0 | 1 | 6 | 2–4 | 8–10 |
| 3. Communicating Reasoning | Communicating Reasoning | 0 | 1 | 8 | 0–2 | 8–10 |

Table 4.A.14 Blueprint Table—Mathematics, Adjusted Form, Grades Three Through Five

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Concepts and Procedures | Priority Cluster | 0 | 0 | 7 | 0 | 10 |
| 1. Concepts and Procedures | Supporting Cluster | 0 | 0 | 3 | 0 | 10 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Problem Solving | 0 | 1 | 3 | 2–4 | 5–7 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Modeling and Data Analysis | 0 | 1 | 3 | 2–4 | 5–7 |
| 3. Communicating Reasoning | Communicating Reasoning | 0 | 1 | 4 | 0–2 | 4–6 |

Note the following about table 4.A.15 and table 4.A.16:

* For more information on content categories, refer to the Content Specifications document on the Smarter Balanced website.
* All CAT items in grades six through eight are designed to be machine-scored.
* Each PT contains four to six total items. Up to four PT items may require hand scoring.
* Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined because of content similarity and to provide flexibility for item development.

Table 4.A.15 Blueprint Table—Mathematics, Grades Six Through Eight

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Concepts and Procedures | Priority Cluster | 0 | 0 | 12–15 | 0 | 16–20 |
| 1. Concepts and Procedures | Supporting Cluster | 0 | 0 | 4–5 | 0 | 16–20 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Problem Solving | 0 | 1 | 6 | 2–4 | 8–10 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Modeling and Data Analysis | 0 | 1 | 6 | 2–4 | 8–10 |
| 3. Communicating Reasoning | Communicating Reasoning | 0 | 1 | 8 | 0–2 | 8–10 |

Table 4.A.16 Blueprint Table—Mathematics, Adjusted Form, Grades Six Through Eight

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Concepts and Procedures | Priority Cluster | 0 | 0 | 6–7 | 0 | 9–10 |
| 1. Concepts and Procedures | Supporting Cluster | 0 | 0 | 3 | 0 | 9–10 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Problem Solving | 0 | 1 | 3 | 2–4 | 8–10 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Modeling and Data Analysis | 0 | 1 | 3 | 2–4 | 5–7 |
| 3. Communicating Reasoning | Communicating Reasoning | 0 | 1 | 4 | 0–2 | 4–6 |

Note the following about table 4.A.17 and table 4.A.18:

* For more information on content categories, refer to the Content Specifications document on the Smarter Balanced website.
* All CAT items in grade eleven are designed to be machine-scored.
* Each PT contains four to six total items. Up to six PT items may require hand scoring.
* Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined, because of content similarity and to provide flexibility for item development.

Table 4.A.17 Blueprint Table—Mathematics, Grade Eleven

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Concepts and Procedures | Priority Cluster | 0 | 0 | 14–16 | 0 | 19–22 |
| 1. Concepts and Procedures | Supporting Cluster | 0 | 0 | 5–6 | 0 | 19–22 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Problem Solving | 0 | 1 | 6 | 2–4 | 8–10 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Modeling and Data Analysis | 0 | 1 | 6 | 2–4 | 8–10 |
| 3. Communicating Reasoning | Communicating Reasoning | 0 | 1 | 8 | 0–2 | 8–10 |

Table 4.A.18 Blueprint Table—Mathematics, Adjusted Form, Grade Eleven

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Claim/Score Reporting Category** | **Content Category** | **CAT Stimuli** | **PT Stimuli** | **CAT Items** | **PT Items** | **Total Items by Claim** |
| 1. Concepts and Procedures | Priority Cluster | 0 | 0 | 8 | 0 | 11 |
| 1. Concepts and Procedures | Supporting Cluster | 0 | 0 | 3 | 0 | 11 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Problem Solving | 0 | 1 | 3 | 2–4 | 5–7 |
| 2. Problem Solving and 4. Modeling and Data Analysis | Modeling and Data Analysis | 0 | 1 | 4 | 2–4 | 5–7 |
| 3. Communicating Reasoning | Communicating Reasoning | 0 | 1 | 4 | 0–2 | 4–6 |

### Appendix 4.B: Performance Task Test Length

Table 4.B.1 Assignment Proportions for ELA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grade Level** | **Proportion** | **Genre** | **# of PTs** | **# of items** |
| 3 | 0.52 | Informative | 13 | 3 |
| 3 | 0.36 | Narrative | 9 | 3 |
| 3 | 0.12 | Opinion | 3 | 3 |
| 4 | 0.41 | Informative | 11 | 3 |
| 4 | 0.48 | Narrative | 13 | 3 |
| 4 | 0.11 | Opinion | 3 | 3 |
| 5 | 0.41 | Informative | 11 | 3 |
| 5 | 0.37 | Narrative | 10 | 3 |
| 5 | 0.22 | Opinion | 6 | 3 |
| 6 | 0.30 | Argumentative | 6 | 3 |
| 6 | 0.45 | Explanatory | 9 | 3 |
| 6 | 0.25 | Narrative | 5 | 3 |
| 7 | 0.31 | Argumentative | 9 | 3 |
| 7 | 0.45 | Explanatory | 13 | 3 |
| 7 | 0.24 | Narrative | 7 | 3 |
| 8 | 0.37 | Argumentative | 11 | 3 |
| 8 | 0.40 | Explanatory | 12 | 3 |
| 8 | 0.23 | Narrative | 7 | 3 |
| 11 | 0.55 | Argumentative | 16 | 3 |
| 11 | 0.45 | Explanatory | 13 | 3 |

### Appendix 4.C: Item Distribution

**Note:** For table 4.C.1 through table 4.C.3, “25%,” “50%,” and “75%” represent the percentiles of the number of items presented to students for the total assessment and for the CAT and PT components.

Table 4.C.1 Summary of Items Presented for the Total Assessment

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Content Area and Grade Level** | **No. Examinees Total** | **Min** | **25%** | **50%** | **75%** | **Max** | **Mean** | **Mode** |
| ELA 3 | 410,284 | 10 | 23 | 23 | 23 | 24 | 23.04 | 23 |
| ELA 4 | 415,827 | 11 | 23 | 23 | 23 | 24 | 23.04 | 23 |
| ELA 5 | 421,656 | 11 | 23 | 23 | 23 | 24 | 23.04 | 23 |
| ELA 6 | 425,382 | 10 | 25 | 25 | 25 | 26 | 25.04 | 25 |
| ELA 7 | 423,888 | 10 | 25 | 25 | 25 | 26 | 25.03 | 25 |
| ELA 8 | 418,271 | 11 | 25 | 25 | 25 | 26 | 25.03 | 25 |
| ELA 11 | 442,124 | 10 | 25 | 25 | 25 | 26 | 25.01 | 25 |
| Mathematics 3 | 413,489 | 13 | 22 | 23 | 23 | 23 | 22.34 | 23 |
| Mathematics 4 | 418,758 | 10 | 21 | 22 | 23 | 23 | 21.93 | 23 |
| Mathematics 5 | 424,239 | 12 | 22 | 22 | 23 | 23 | 22.20 | 23 |
| Mathematics 6 | 427,281 | 10 | 22 | 23 | 23 | 23 | 22.60 | 23 |
| Mathematics 7 | 425,413 | 13 | 21 | 22 | 23 | 23 | 21.93 | 23 |
| Mathematics 8 | 419,308 | 10 | 21 | 22 | 22 | 23 | 21.72 | 22 |
| Mathematics 11 | 440,908 | 10 | 23 | 23 | 23 | 24 | 22.98 | 23 |

Table 4.C.2 Summary of Items Presented in the CAT Component of the Assessment

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Content Area and Grade Level** | **No. Examinees Total** | **Min** | **25%** | **50%** | **75%** | **Max** | **Mean** | **Mode** |
| ELA 3 | 410,284 | 10 | 20 | 20 | 20 | 24 | 20.16 | 20 |
| ELA 4 | 415,827 | 10 | 20 | 20 | 20 | 24 | 20.16 | 20 |
| ELA 5 | 421,656 | 10 | 20 | 20 | 20 | 24 | 20.16 | 20 |
| ELA 6 | 425,382 | 10 | 22 | 22 | 22 | 26 | 22.16 | 22 |
| ELA 7 | 423,888 | 10 | 22 | 22 | 22 | 26 | 22.15 | 22 |
| ELA 8 | 418,271 | 10 | 22 | 22 | 22 | 26 | 22.15 | 22 |
| ELA 11 | 442,124 | 10 | 22 | 22 | 22 | 26 | 22.10 | 22 |
| Mathematics 3 | 413,489 | 10 | 17 | 17 | 17 | 19 | 17.08 | 17 |
| Mathematics 4 | 418,758 | 10 | 17 | 17 | 17 | 19 | 17.08 | 17 |
| Mathematics 5 | 424,239 | 10 | 17 | 17 | 17 | 19 | 17.08 | 17 |
| Mathematics 6 | 427,281 | 10 | 17 | 17 | 17 | 19 | 17.08 | 17 |
| Mathematics 7 | 425,413 | 10 | 17 | 17 | 17 | 19 | 17.08 | 17 |
| Mathematics 8 | 419,308 | 10 | 17 | 17 | 17 | 19 | 17.08 | 17 |
| Mathematics 11 | 440,908 | 10 | 18 | 18 | 18 | 20 | 18.06 | 18 |

Table 4.C.3 Summary of Items Presented in the PT Component of the Assessment

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Content Area and Grade Level** | **No. Examinees Total** | **Min** | **25%** | **50%** | **75%** | **Max** | **Mean** | **Mode** |
| ELA 3 | 393,981 | 1 | 3 | 3 | 3 | 3 | 3.00 | 3 |
| ELA 4 | 399,258 | 1 | 3 | 3 | 3 | 3 | 3.00 | 3 |
| ELA 5 | 404,841 | 1 | 3 | 3 | 3 | 3 | 3.00 | 3 |
| ELA 6 | 408,401 | 1 | 3 | 3 | 3 | 3 | 3.00 | 3 |
| ELA 7 | 406,980 | 1 | 3 | 3 | 3 | 3 | 3.00 | 3 |
| ELA 8 | 401,572 | 1 | 3 | 3 | 3 | 3 | 3.00 | 3 |
| ELA 11 | 428,934 | 1 | 3 | 3 | 3 | 3 | 3.00 | 3 |
| Mathematics 3 | 397,020 | 1 | 5 | 6 | 6 | 6 | 5.48 | 6 |
| Mathematics 4 | 402,076 | 1 | 4 | 5 | 6 | 6 | 5.05 | 6 |
| Mathematics 5 | 407,284 | 1 | 5 | 5 | 6 | 6 | 5.34 | 6 |
| Mathematics 6 | 410,282 | 1 | 6 | 6 | 6 | 6 | 5.75 | 6 |
| Mathematics 7 | 408,444 | 1 | 4 | 5 | 6 | 6 | 5.06 | 6 |
| Mathematics 8 | 402,565 | 1 | 5 | 5 | 5 | 6 | 4.83 | 5 |
| Mathematics 11 | 427,834 | 1 | 5 | 5 | 5 | 6 | 5.07 | 5 |

Table 4.C.4 Percent of Students Meeting Blueprint

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Content Area and Grade Level** | **N** | **Overall Percent of Students Meeting Blueprints** | **Claim 1 Not Meeting** | **Claim 1 Meeting** | **Claim 1 Exceeding** | **Claim 2 Not Meeting** | **Claim 2 Meeting** | **Claim 2 Exceeding** | **Claim 3 Not Meeting** | **Claim 3 Meeting** | **Claim 3 Exceeding** | **Claim 4 Not Meeting** | **Claim 4 Meeting** | **Claim 4 Exceeding** |
| ELA 3 | 393,981 | 99.92 | 0.00 | 100.00 | 0.00 | 0.08 | 99.92 | 0.00 | 0.02 | 99.98 | 0.00 | 0.02 | 99.98 | 0.00 |
| ELA 4 | 399,258 | 99.92 | 0.01 | 99.99 | 0.00 | 0.08 | 99.92 | 0.00 | 0.01 | 99.99 | 0.00 | 0.02 | 99.98 | 0.00 |
| ELA 5 | 404,841 | 99.93 | 0.01 | 99.99 | 0.00 | 0.07 | 99.93 | 0.00 | 0.02 | 99.98 | 0.00 | 0.02 | 99.98 | 0.00 |
| ELA 6 | 408,401 | 99.88 | 0.04 | 99.96 | 0.00 | 0.11 | 99.89 | 0.00 | 0.03 | 99.97 | 0.00 | 0.05 | 99.95 | 0.00 |
| ELA 7 | 406,980 | 99.81 | 0.07 | 99.93 | 0.00 | 0.19 | 99.81 | 0.00 | 0.05 | 99.95 | 0.00 | 0.09 | 99.91 | 0.00 |
| ELA 8 | 401,572 | 99.82 | 0.06 | 99.94 | 0.00 | 0.18 | 99.82 | 0.00 | 0.05 | 99.95 | 0.00 | 0.08 | 99.92 | 0.00 |
| ELA 11 | 428,934 | 99.62 | 0.15 | 99.85 | 0.00 | 0.37 | 99.63 | 0.00 | 0.13 | 99.87 | 0.00 | 0.21 | 99.79 | 0.00 |
| Mathematics 3 | 397,020 | 99.99 | 0.01 | 99.99 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | N/A | N/A | N/A |
| Mathematics 4 | 402,076 | 99.99 | 0.01 | 99.99 | 0.00 | 0.01 | 99.99 | 0.00 | 0.00 | 100.00 | 0.00 | N/A | N/A | N/A |
| Mathematics 5 | 407,284 | 99.99 | 0.01 | 99.99 | 0.00 | 0.01 | 99.99 | 0.00 | 0.00 | 100.00 | 0.00 | N/A | N/A | N/A |
| Mathematics 6 | 410,282 | 99.96 | 0.03 | 99.97 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | N/A | N/A | N/A |
| Mathematics 7 | 408,444 | 99.95 | 0.05 | 99.95 | 0.00 | 0.00 | 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | N/A | N/A | N/A |
| Mathematics 8 | 402,565 | 99.94 | 0.05 | 99.95 | 0.00 | 0.01 | 99.99 | 0.00 | 0.00 | 100.00 | 0.00 | N/A | N/A | N/A |
| Mathematics 11 | 427,834 | 99.94 | 0.04 | 99.96 | 0.00 | 0.04 | 99.96 | 0.00 | 0.02 | 99.98 | 0.00 | N/A | N/A | N/A |

Table 4.C.5 Percent of Students Meeting Embedded Field Test Blueprint

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Content Area and Grade Level** | **N** | **Overall Percent of Students Meeting Blueprints** | **Claim 1 Not Meeting** | **Claim 1 Meeting** | **Claim 1 Exceeding** | **Claim 2 Not Meeting** | **Claim 2 Meeting** | **Claim 2 Exceeding** | **Claim 3 Not Meeting** | **Claim 3 Meeting** | **Claim 3 Exceeding** | **Claim 4 Not Meeting** | **Claim 4 Meeting** | **Claim 4 Exceeding** |
| ELA 3 | 16,303 | 99.95 | 0.01 | 99.99 | 0.00 | 0.05 | 99.95 | 0.00 | 0.04 | 99.96 | 0.00 | 0.04 | 99.96 | 0.00 |
| ELA 4 | 16,569 | 99.98 | 0.00 | 100.00 | 0.00 | 0.02 | 99.98 | 0.00 | 0.01 | 99.99 | 0.00 | 0.02 | 99.98 | 0.00 |
| ELA 5 | 16,815 | 99.99 | 0.01 | 99.99 | 0.00 | 0.01 | 99.99 | 0.00 | 0.01 | 99.99 | 0.00 | 0.01 | 99.99 | 0.00 |
| ELA 6 | 16,981 | 99.93 | 0.04 | 99.96 | 0.00 | 0.07 | 99.93 | 0.00 | 0.04 | 99.96 | 0.00 | 0.07 | 99.93 | 0.00 |
| ELA 7 | 16,908 | 99.88 | 0.09 | 99.91 | 0.00 | 0.12 | 99.88 | 0.00 | 0.07 | 99.93 | 0.00 | 0.12 | 99.88 | 0.00 |
| ELA 8 | 16,699 | 99.92 | 0.05 | 99.95 | 0.00 | 0.08 | 99.92 | 0.00 | 0.03 | 99.97 | 0.00 | 0.07 | 99.93 | 0.00 |
| ELA 11 | 13,190 | 99.75 | 0.17 | 99.83 | 0.00 | 0.25 | 99.75 | 0.00 | 0.14 | 99.86 | 0.00 | 0.25 | 99.75 | 0.00 |
| Mathematics 3 | 16,469 | 99.98 | 0.02 | 99.98 | 0.00 | 0.02 | 99.98 | 0.00 | 0.02 | 99.98 | 0.00 | N/A | N/A | N/A |
| Mathematics 4 | 16,682 | 99.95 | 0.03 | 99.97 | 0.00 | 0.04 | 99.96 | 0.01 | 0.04 | 99.96 | 0.00 | N/A | N/A | N/A |
| Mathematics 5 | 16,955 | 99.94 | 0.02 | 99.98 | 0.00 | 0.02 | 99.94 | 0.04 | 0.06 | 99.94 | 0.00 | N/A | N/A | N/A |
| Mathematics 6 | 16,999 | 99.94 | 0.06 | 99.94 | 0.00 | 0.02 | 99.98 | 0.00 | 0.02 | 99.98 | 0.00 | N/A | N/A | N/A |
| Mathematics 7 | 16,969 | 99.94 | 0.06 | 99.94 | 0.00 | 0.00 | 100.00 | 0.00 | 0.01 | 99.99 | 0.00 | N/A | N/A | N/A |
| Mathematics 8 | 16,743 | 99.91 | 0.08 | 99.92 | 0.00 | 0.04 | 99.96 | 0.01 | 0.05 | 99.95 | 0.00 | N/A | N/A | N/A |
| Mathematics 11 | 13,074 | 99.92 | 0.06 | 99.94 | 0.00 | 0.06 | 99.92 | 0.02 | 0.08 | 99.92 | 0.00 | N/A | N/A | N/A |