| Target Sampling Mathematics Grade 5 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Claim | Content Category | Assessment Targets | DOK | Items |  | Total Items |
|  |  |  |  | CAT | PT |  |
| 1. Concepts and Procedures | Priority Cluster | E. Use equivalent fractions as a strategy to add and subtract fractions. | 1, 2 | 6 | 0 | 15 |
|  |  | I. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. | 1, 2 |  |  |  |
|  |  | F. Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 1, 2 | 5 |  |  |
|  |  | D. Perform operations with multi-digit whole numbers and with decimals to hundredths. | 1, 2 | 4 |  |  |
|  |  | C. Understand the place value system. | 1, 2 |  |  |  |
|  | Supporting Cluster | J. Graph points on the coordinate plane to solve real-world and mathematical problems. | 1 | 3 | 0 | 5 |
|  |  | K. Classify two-dimensional figures into categories based on their properties. | 2 |  |  |  |
|  |  | A. Write and interpret numerical expressions. | 1 | 2 |  |  |
|  |  | B. Analyze patterns and relationships. | 2 |  |  |  |
|  |  | G. Convert like measurement units within a given measurement system. | 1 |  |  |  |
|  |  | H. Represent and interpret data. | 1, 2 |  |  |  |
| 2. Problem Solving <br> 4. Modeling and Data Analysis | Problem Solving (drawn across content domains) | A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace. | 2, 3 | 1 | 1-2 | 3-4 |
|  |  | B. Select and use appropriate tools strategically. <br> C. Interpret results in the context of a situation. <br> D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas). | 1, 2, 3 | 1 |  |  |

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-- The CAT algorithm will be configured to ensure the following:
For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
For combined Claims 2 and 4 , each student will receive at least 2 CAT items at DOK 3 or higher.
For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

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|  |  |  |  | CAT | PT |  |
| 2. Problem Solving <br> 4. Modeling and Data Analysis | Modeling and Data Analysis (drawn across content domains) | A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. <br> D. Interpret results in the context of a situation. | 2, 3 | 1 | 2-3 | 5-6 |
|  |  | B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. <br> E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon. | 2, 3, 4 | 1 |  |  |
|  |  | C. State logical assumptions being used. <br> F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas). | 1, 2 | 1 |  |  |
|  |  | G. Identify, analyze, and synthesize relevant external resources to pose or solve problems. | 3, 4 | 0 |  |  |
| 3. Communicating Reasoning | Communicating Reasoning <br> (drawn across content domains) | A. Test propositions or conjectures with specific examples. <br> D. Use the technique of breaking an argument into cases. | 2, 3 | 2 | 2 | 8 |
|  |  | B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. <br> E. Distinguish correct logic or reasoning from that which is flawed, and-if there is a flaw in the argument-explain what it is. | 2, 3, 4 | 2 |  |  |
|  |  | C. State logical assumptions being used. <br> F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. | 2, 3 | 2 |  |  |

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