

GRADE 3 Summative Assessment Targets
Providing Evidence Supporting Claim #1

Claim #1: Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.

Content for this claim may be drawn from any of the Grade 3 clusters represented below, with a much greater proportion drawn from clusters designated “m” (major) and the remainder drawn from clusters designated “a/s” (additional/supporting) – with these items fleshing out the major work of the grade. Sampling of Claim #1 assessment targets will be determined by balancing the content assessed with items and tasks for Claims #2, #3, and #4.⁵ Grade level content emphases are summarized in Appendix A and CAT sampling proportions for Claim 1 are given in Appendix B.

Operations and Algebraic Thinking

Target A [m]: Represent and solve problems involving multiplication and division.⁶ (DOK 1, 2)
Items/tasks for this target require students to use multiplication and division within 100 to solve straightforward, one-step contextual word problems in situations involving equal groups, arrays, and measurement quantities such as length, liquid volume, and masses/weights of objects. These problems should be of the equal-groups and arrays-situation types, but can include more difficult measurement quantity situations. All of these items/tasks will code straightforwardly to standard 3.OA.3. Few of these tasks coding to this standard will make the method of solution a separate target of assessment. Other tasks associated with this target will probe student understanding of the meanings of multiplication and division (3.OA.1,2).⁷

Non-contextual tasks that explicitly ask the student to determine the unknown number in a multiplication or division equation relating three whole numbers (3.OA.4) will support the development of items that provide a range of difficulty necessary for populating an adaptive item bank (see section *Understanding Assessment Targets in an Adaptive Framework*, below, for further explication.).

Target B [m]: Understand properties of multiplication and the relationship between multiplication and division. (DOK 1)

Whereas Target A focuses more on the practical uses of multiplication and division, Target B focuses more on the mathematical properties of these operations, including the mathematical relationship between multiplication and division. Tasks associated with this target are not intended to be vocabulary exercises along the lines of “which of these illustrates the distributive property?” As indicated by the CCSSM,⁸ students need not know the formal names for the properties of operations. Instead, tasks are to probe whether students are able to *use* the properties to multiply and divide.

Note, tasks that code directly to Target B will be limited to the 10x10 times table. (But see Target E under 3.NBT below.)

Target C [m]: Multiply and divide within 100. (DOK 1)

⁵ For example, if under Claim #2, a problem solving task in a given year centers on a particular topic area, then it is unlikely that this topic area will also be assessed under Claim #1 in a selected response item.

⁶ See CCSSM, Table 2, p. 89 for additional information.

⁷ Note the examples given in italics in CCSSM for these two standards. [CCSSM p. 23]

⁸ See CCSSM, footnote on page 23.