# 2019-20 NC Check-In 3
## Grade 3 Mathematics
## State Item Statistics

| Content Standard | | | Item # | Depth of Knowledge | Percent Correct by Item |
|---|---|---|---|---|---|
| **Geometry** | **3.G.1** | Reason with two-dimensional shapes and their attributes.<br>• Investigate, describe, and reason about composing triangles and quadrilaterals and decomposing quadrilaterals.<br>• Recognize and draw examples and non-examples of types of quadrilaterals including rhombuses, rectangles, squares, parallelograms, and trapezoids. | 1 | Recall | 62.8 |
| | | | 3 | Skill/Concept | 76.2 |
| | | | 8 | Recall | 43.5 |
| | | | 9 | Skill/Concept | 74.8 |
| | | | 16^ | Recall | 35.2 |
| **Measurement and Data** | **3.MD.7** | Relate area to the operations of multiplication and addition.<br>• Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.<br>• Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving problems, and represent whole-number products as rectangular areas in mathematical reasoning.<br>• Use tiles and/or arrays to illustrate and explain that the area of a rectangle can be found by partitioning it into two smaller rectangles, and that the area of the large rectangle is the sum of the two smaller rectangles. | 13^ | Recall | 82.5 |
| | | | 17^ | Skill/Concept | 79.9 |
| | | | 19^ | Skill/Concept | 30.7 |
| | | | 21^ | Recall | 64.8 |
| | | | 22^ | Recall | 73.3 |
| **Number and Operations-Fractions** | **3.NF.2** | Interpret fractions with denominators of 2, 3, 4, 6, and 8 using area and length models.<br>• Using an area model, explain that the numerator of a fraction represents the number of equal parts of the unit fraction.<br>• Using a number line, explain that the numerator of a fraction represents the number of lengths of the unit fraction from 0. | 2 | Skill/Concept | 40.5 |
| | | | 5 | Recall | 84.3 |
| | | | 10 | Recall | 58.6 |
| | | | 12 | Recall | 86.2 |
| | | | 23^ | Recall | 84.0 |
| | **3.NF.3** | Represent equivalent fractions with area and length models by:<br>• Composing and decomposing fractions into equivalent fractions using related fractions: halves, fourths and eighths; thirds and sixths.<br>• Explaining that a fraction with the same numerator and denominator equals one whole.<br>• Expressing whole numbers as fractions, and recognize fractions that are equivalent to whole numbers | 6 | Skill/Concept | 34.1 |
| | | | 7 | Recall | 77.8 |
| | | | 11 | Skill/Concept | 46.0 |
| | | | 14^ | Recall | 25.2 |
| | | | 25^ | Skill/Concept | 52.9 |
| | **3.NF.4** | Compare two fractions with the same numerator or the same denominator by reasoning about their size, using area and length models, and using the >, <, and = symbols. Recognize that comparisons are valid only when the two fractions refer to the same whole with denominators: halves, fourths and eighths; thirds and sixths. | 4 | Skill/Concept | 69.5 |
| | | | 15^ | Recall | 81.3 |
| | | | 18^ | Recall | 61.1 |
| | | | 20^ | Skill/Concept | 55.6 |
| | | | 24^ | Recall | 69.2 |

\* Items marked with an asterisk (*) are gridded response items.

^ Students had access to a calculator when completing items marked with a ^.

Note: Results from NC Check-Ins should not be compared across interims, districts, or the state.

Each math Grade 3 NC Check-In assesses different content standards.