

# NWEA Assessment Item Illustrating 2.G.A.3

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**Domain:** Geometry

**2.G.A:** Reason with shapes and their attributes.

**Calculator Availability:** No

Select all the rectangles partitioned into fourths.

The image shows five rectangles, each partitioned into four equal parts. The first three rectangles are oriented vertically and are divided into four horizontal strips. The last two rectangles are oriented horizontally and are divided into four vertical strips. Each rectangle has a small, empty square checkbox to its left, indicating that all five rectangles are to be selected.

**Alignment: 2.G.A.3:** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

The focus in this standard is on laying the foundation for conceptual understanding of fractions. Answering this item correctly involves reasoning that the same whole can be divided into equal parts multiple ways.

**Coherence:** The partitioning component of this standard builds upon the work students did composing and decomposing shapes in kindergarten<sup>K.G.B.6</sup> and in grade 1.<sup>1.G.A.2</sup> In grade 1, students partitioned circles and rectangles into halves and fourths, using these terms rather than fractional notation.<sup>1.G.A.3</sup> In grade 2, students expand their knowledge by also partitioning shapes into thirds and exploring the concept that equal shares of identical wholes need not have the same shape. All of these concepts lay the groundwork for the introduction of fraction notation in grade 3.<sup>3.NF.A, 3.G.A.2</sup> In grade 3, students will model fractions using both a number line and area models like the keys in this item.<sup>3.NF.A</sup> These representations will help students to visualize the relationship between parts and wholes and to develop understanding of operations with fractions.<sup>4.NF.A, 4.NF.B, 5.NF.A, 5.NF.B</sup>

**Rigor:** This item attends to conceptual understanding because students must understand that there are different ways to partition a figure into equal shares and that they can reason about the relative size of each unit created by the partition.

**Answer Key:**

Select all the rectangles partitioned into fourths.

The image shows a selection interface with five rectangles, each partitioned into four equal parts. The first three rectangles are horizontal partitions, and the last two are vertical partitions. Each rectangle has a checkbox to its left. The second horizontal rectangle and the second vertical rectangle have their checkboxes checked, indicating they are the correct answers.

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