



Topic C

Halves, Thirds, and Fourths of Circles and Rectangles

2.G.3, 2.G.1

Focus Standard:	2.G.3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words <i>halves</i> , <i>thirds</i> , <i>half of</i> , <i>a third of</i> , 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.
Instructional Days:	4	
Coherence		
-Links from:	G1–M5	Identifying, Composing, and Partitioning Shapes
-Links to:	G3–M5	Fractions as Numbers on the Number Line

Topic C focuses on partitioning circles and rectangles into equal fractional parts. In Lesson 9, students are first introduced to partitioning shapes into two equal shares, or halves, using both circles and rectangles. As students are shown pictures of partitioned shapes, they are asked to determine whether the shaded (or unshaded) portion represents half of the figure. In order to encourage students to reason about equal shares, a variety of partitions and orientations are used.

Lesson 10 continues the same process with fourths and thirds. Splitting each half into two equal parts, the students create fourths. They also learn to decompose a whole into three equal parts to create thirds. Given a variety of partitioned shapes, students are asked to determine how many thirds or fourths are represented by the shaded (or unshaded) portion. Lesson 10 ends with students synthesizing their understanding of halves, thirds, and fourths by partitioning a pizza and a rectangular sheet cake, making decisions based on their share of the pie or cake.

In Lesson 11, students build upon their new knowledge by assembling a whole out of fractional parts. Given a circle made of two parts, students will see that the whole circle is composed of 2 halves. Similarly, they will see that a whole rectangle cut into thirds is made of 3 thirds, or that a square cut into fourths is made of 4 fourths.

Topic C concludes with Lesson 12, in which students learn that equal parts of a rectangle can have different shapes. Using geoboards, students might partition a given rectangle into two squares, two rectangles, or even two triangles. In each case, students describe the parts as halves. In addition, students partition a

square paper into differently shaped fourths and they explain how one of the fourths (the square shape) can be transformed into the other fourth (the rectangle shape), as shown below.



This topic provides a foundation for Topic D, applying what students have learned about fractional parts of a circle, particularly halves and quarters, to telling time on an analog clock.

A Teaching Sequence Towards Mastery of Halves, Thirds, and Fourths of Circles and Rectangles

Objective 1: Partition circles and rectangles into equal parts, and describe those parts as halves, thirds, or fourths.
(Lessons 9–10)

Objective 2: Describe a whole by the number of equal parts including 2 halves, 3 thirds, and 4 fourths.
(Lesson 11)

Objective 3: Recognize that equal parts of an identical rectangle can have different shapes.
(Lesson 12)