



Topic D

Application of Fractions to Tell Time

2.MD.7, 2.G.3, 2.NBT.2, 2.NBT.5, 2.NBT.6

Focus Standard:	2.MD.7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
	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–M2	Place Value and Problem Solving with Units of Measure

In Topic D, students apply fraction and skip-counting skills to telling time. The Topic starts with Lesson 13, in which students make paper clocks from templates. After a brief review of the clock using a geared instructional clock, students fold their paper clock face in half and trace along the fold line to delineate the 2 halves. They then mark the top of the fold with 12 and the bottom with 6. Students next fold the clock in half again so that the two fold points meet, creating quarters. Students trace along this second fold line and mark 3 and 9 at the new fold points. In the end, they label the remaining numbers and attach hands in order to use it as a practice clock.

Having constructed this tool, students then practice telling time to the nearest half and quarter hour. They relate 30 minutes to a half hour and 15 minutes to a quarter hour, associating, for example, “half past 7” with 7:30, or 2:45 with “a quarter to 3.”

In Lesson 14, students start to relate each of the 12 numbers on the clock face with intervals of 5 minutes. They use skip-counting to count up to and down from 60 by fives in preparation for telling time to the nearest 5 minutes. Next, they learn to tell time by counting on the clock face numbers for the minute hand, as well as relating the position of the hour hand to the correct hour.

Lesson 15 continues the same process, now adding the complexity of a.m. and p.m. Students view pictures showing everyday activities along with the time represented in digital clock form and determine whether the time shown in the picture would be a.m. or p.m.

In Lesson 16, students apply their subtraction skills to solve problems involving time intervals. Given two times, they must calculate how much time has passed between them, whether in whole hours or a half hour (e.g., the elapsed time between 3:00 p.m. and 7:00 p.m., or 6:30 a.m. and 7:00 a.m.). Finally, they close the year determining the time interval in days before they become third-graders.

A Teaching Sequence Towards Mastery of Application of Fractions to Tell Time

Objective 1: Construct a paper clock by partitioning a circle into halves and quarters, and tell time to the half hour or quarter hour.
(Lesson 13)

Objective 2: Tell time to the nearest five minutes.
(Lesson 14)

Objective 3: Tell time to the nearest five minutes; relate *a.m.* and *p.m.* to time of day.
(Lesson 15)

Objective 3: Solve elapsed time problems involving whole hours and a half hour.
(Lesson 16)