



Topic B

Fractions as Division

5.NF.3

Focus Standard:	5.NF.3	Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. <i>For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</i>
Instructional Days:	4	
Coherence -Links from:	G4–M5	Fraction Equivalence, Ordering, and Operations
	G4–M6	Decimal Fractions
-Links to:	G6–M2	Arithmetic Operations Including Division of Fractions

Topic B focuses on interpreting fractions as division. Equal sharing with area models (both concrete and pictorial) provides students with an opportunity to understand the division of whole numbers with answers in the form of fractions or mixed numbers (e.g., seven brownies shared by three girls, three pizzas shared by four people). Discussion also includes an interpretation of remainders as a fraction (**5.NF.3**). Tape diagrams provide a linear model of these problems. Moreover, students see that, by renaming larger units in terms of smaller units, division resulting in a fraction is similar to whole number division.

Topic B continues as students solve real-world problems (**5.NF.3**) and generate story contexts for visual models. The topic concludes with students making connections between models and equations while reasoning about their results (e.g., between what two whole numbers does the answer lie?).

A Teaching Sequence Toward Mastery of Fractions as Division

Objective 1: Interpret a fraction as division.
(Lessons 2–3)

Objective 2: Use tape diagrams to model fractions as division.
(Lesson 4)

Objective 3: Solve word problems involving the division of whole numbers with answers in the form of fractions or whole numbers.
(Lesson 5)