



Topic G

Partial Quotients and Multi-Digit Decimal Division

5.NBT.2, 5.NBT.7

Focus Standard:	5.NBT.2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote power of 10.
	5.NBT.7	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
Instructional Days:	4	
Coherence	-Links from:	G5–M1 Place Value and Decimal Fractions
	-Links to:	G6–M2 Arithmetic Operations Including Division of Fractions

Topic G uses the knowledge students have accumulated about whole number division with double-digit divisors, and extends it to division of decimals by double-digit divisors (**5.NBT.7**). Parallels between sharing or grouping whole number units, and sharing or grouping decimal units are the emphasis of Topic G. Students quickly surmise that the concepts of division remain the same regardless of the size of the units being shared or grouped. Placement of the decimal point in quotients is based on students' reasoning about when wholes are being shared or grouped, and when the part being shared or grouped transitions into fractional parts. Students reason about remainders in a deeper way than in previous grades. Students consider cases in which remainders expressed as whole numbers appear to be equivalent; however, equivalence is disproven when such remainders are decomposed as decimal units and shared or grouped.

A Teaching Sequence Towards Mastery of Partial Quotients and Multi-Digit Decimal Division

Objective 1: Divide decimal dividends by multiples of 10, reasoning about the placement of the decimal point and making connections to a written method.
(Lesson 24)

Objective 2: Use basic facts to approximate decimal quotients with two-digit divisors, reasoning about the placement of the decimal point.
(Lesson 25)

Objective 3: Divide decimal dividends by two-digit divisors, estimating quotients, reasoning about the placement of the decimal point, and making connections to a written method.
(Lessons 26–27)