



Topic B:

Multi-Digit Decimal Operations—Adding, Subtracting, and Multiplying

6.NS.B.3

Focus Standard: 6.NS.B.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

Instructional Days: 3

Lesson 9: Sums and Differences of Decimals (P)¹

Lesson 10: The Distributive Property and the Products of Decimals (P)

Lesson 11: Fraction Multiplication and the Products of Decimals (E)

Prior to division of decimals, students will revisit all decimal operations in Topic B. Students have had extensive experience with decimal operations to the hundredths and thousandths (**5.NBT.B.7**), which prepares them to easily compute with more decimal places. Students begin by relating the first lesson in this topic to mixed numbers from the last lesson in Topic A. They find that sums and differences of large mixed numbers can be more efficiently determined by first converting to a decimal and then applying the standard algorithms (**6.NS.B.3**). Within decimal multiplication, students begin to practice the distributive property. Students use arrays and partial products to understand and apply the distributive property as they solve multiplication problems involving decimals. Place value enables students to determine the placement of the decimal point in products and recognize that the size of a product is relative to each factor. Students discover and use connections between fraction multiplication and decimal multiplication.

¹ Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E**-Exploration Lesson, **S**-Socratic Lesson