## Core Content

### Cluster Title: Compute fluently with multi-digit numbers and find common factors and multiples.

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

### MASTERY Patterns of Reasoning:

**Conceptual:**
- Understand role of place value in the operations of addition, subtraction, multiplication, and division.
- Identify when it is appropriate to use the standard algorithm.

**Procedural:**
- Add multi-digit decimals.
- Subtract multi-digit decimals.
- Multiply multi-digit decimals.
- Divide multi-digit decimals.

**Representational:**
- Model the operations of addition, subtraction, multiplication, and division with manipulatives, diagrams and story contexts for multi-digit decimals.

## Supports for Teachers

### Critical Background Knowledge

**Conceptual:**
- Understand decimal place values.
- Know basic facts for addition, subtraction, multiplication and division.

**Procedural:**
- Add single-digit decimals.
- Subtract single-digit decimals.
- Multiply single-digit decimals.
- Divide single-digit decimals.
**Representational:**
Model the operations of addition, subtraction, multiplication, and division with manipulatives, diagrams and story contexts for single digit decimals.

**Academic Vocabulary**
addend, sum, difference, factor, product, divisor, dividend, quotient, remainder

<table>
<thead>
<tr>
<th>Instructional Strategies Used</th>
<th>Resources Used</th>
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</thead>
<tbody>
<tr>
<td>1-4. Connect students’ knowledge of various strategies to the standard algorithm.</td>
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<tr>
<td>1-4. Have students look at student work that contains a common misconception and look at errors and discuss how to correct the error.</td>
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**Assessment Tasks Used**

<table>
<thead>
<tr>
<th>Skill-based Task</th>
<th>Problem Task:</th>
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<tbody>
<tr>
<td>1. 242.134 + 308.02</td>
<td>The school had a bake sale and raised $75.55. If each cookie cost $0.05, how many cookies were sold? Explain how you got your answer.</td>
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<td>2. 38.9 – 14.334</td>
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<td>3. 11.82 x 2.81</td>
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<td>4. 341.8 ÷ 1.2</td>
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