Accessible Algorithm for Subtraction

Introduce the accessible algorithm presented below when students learn about subtraction with regrouping. Support students' use of the algorithm whenever they are working on subtraction that requires regrouping.

Ungroup First Method

This method helps students to see the relationship between the two numbers in subtraction. In the traditional, alternating method of subtraction, students often view the two numbers as columns of digits that are unrelated to each number as a whole. By rewriting the top number so that it is ready for subtraction, and then subtracting, students better understand the subtraction process.

By ungrouping first where it is needed, students can work left-to-right (as they read), or right-to-left. Students can be encouraged to draw an oval "magnifying glass" around the top number before they regroup. This helps students see that ungrouping consists of breaking a number down into its parts to prepare it for subtraction.

*Subtract Multi-Digit Numbers with Ungrouping*

<table>
<thead>
<tr>
<th>Left-to-Right</th>
<th>Right-to-Left</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
</tbody>
</table>

Less-advanced students may use the **Expanded Method** shown below until they are ready to transition to the Ungroup First Method.

\[
245 = 200 + 40 + 5 \quad (30 + 15)
\]
\[
- 119 = 100 + 10 + 9
\]
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126 = 100 + 20 + 6
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