

Accessible Algorithm for Subtraction

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

Ungroup First Method

Use with *Houghton Mifflin Math*, Ch 13.

This method helps children to see the relationship between the two numbers in subtraction. In the traditional, alternating method of subtraction, children 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, children better understand the subtraction process.

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

Subtract Multi-Digit Numbers with Ungrouping

Left-to-Right

$$\begin{array}{r} \textcircled{\begin{array}{r} 4 \quad 14 \\ \cancel{5} \quad \cancel{5} \quad 7 \end{array}} \\ - 278 \\ \hline 279 \end{array}$$

Right-to-Left

$$\begin{array}{r} \textcircled{\begin{array}{r} 4 \quad 14 \\ \cancel{5} \quad \cancel{5} \quad 7 \end{array}} \\ - 278 \\ \hline 279 \end{array}$$

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

$$\begin{array}{r} 245 = 200 + \overset{30}{\cancel{40}} + \overset{15}{\cancel{5}} \\ - 119 = 100 + 10 + 9 \\ \hline 126 = 100 + 20 + 6 \end{array}$$