



Dear Family,

Your child is currently participating in math activities that help him or her to understand addition and subtraction of 2- and 3-digit numbers.

Addition Methods: Students may use the common U.S. method, referred to as the New Groups Above Method, as well as two alternative methods. In the New Groups Below Method, students add from right to left and write the new ten and new hundred on the line. In the Show All Totals method, students add in either direction, write partial sums and then add the partial sums to get the total. Students also use proof drawings to demonstrate grouping 10 ones to make a new ten and grouping 10 tens to make a new hundred.

The New Groups Below Method shows the teen number 13 better than does the New Groups Above Method, where the 1 and 3 are separated. Also, addition is easier in New Groups Below, where you add the 2 numbers you see and just add 1.

New Groups Above:

$$\begin{array}{r} 1 \leftarrow \text{the new ten} \\ 46 \\ + 37 \\ \hline 83 \end{array}$$

New Groups Below:

$$\begin{array}{r} 46 \\ + 37 \\ \hline 83 \end{array} \leftarrow \text{the new ten}$$

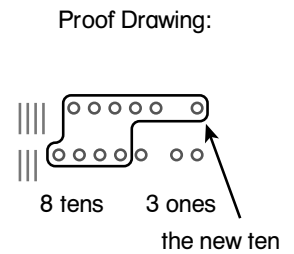
the new ten

$$\begin{array}{r} 46 \\ + 37 \\ \hline 70 \\ + 13 \\ \hline 83 \end{array}$$

Show All Totals:

Add right to left.

Add left to right.



Subtraction Methods: Students may use the common U.S. method in which the subtraction is done right to left, with the ungrouping done before each column is subtracted. They also learn an alternative method in which all the ungrouping is done *before* the subtracting. If they do all the ungrouping first, students can subtract either from left to right or from right to left.

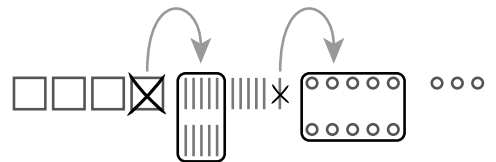
The Ungroup First Method helps students avoid the common error of subtracting a smaller top number from a larger bottom number.

1. Ungroup first
2. Subtract (from left to right or from right to left).

$$\begin{array}{r} 15 \\ 3 \cancel{5} 13 \\ - 275 \\ \hline 188 \end{array}$$

Ungroup 1 hundred to make 10 tens.

Ungroup 1 ten to make 10 ones.



3 hundreds 15 tens 13 ones

Please call if you have any questions or comments.

Thank you.

Sincerely,
Your child's teacher