Dear Family,

Your child is learning math in an innovative program called *Math Expressions*. In Unit 1, your child will use place value drawings and charts to understand that the value of each place is 10 times greater than the value of the place to its right. This understanding is essential when comparing, rounding, or adding multidigit numbers. *Math Expressions* encourages children to think about "making new groups" to help them understand place values.

We call the method below "New Groups Above". The numbers that represent the new groups are written above the problem.

1. Add the ones:

5 + 7 = 12 ones
12 = 2 ones + 10 ones,
and 10 ones = 1 new ten.

$$\begin{array}{r} {\scriptstyle 1} \\ 5,175 \\ +\ 3,967 \\ \hline 2 \end{array}$$

2. Add the tens:

1 + 7 + 6 = 14 tens
14 = 4 tens + 10 tens,
and 10 tens = 1 new hundred.

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 5,175 \\ +\ 3,967 \\ \hline 42 \end{array}$$

3. Add the hundreds:

1 + 1 + 9 = 11 hundreds
11 = 1 hundred + 10 hundreds,
and 10 hundreds = 1 new thousand.

$$\begin{array}{r} {\scriptstyle 1\ 1\ 1} \\ 5,175 \\ +\ 3,967 \\ \hline 142 \end{array}$$

4. Add the thousands:

1 + 5 + 3 = 9 thousands

$$\begin{array}{r} {\scriptstyle 1\ 1\ 1} \\ 5,175 \\ +\ 3,967 \\ \hline 9,142 \end{array}$$

We call the following method "New Groups Below." The steps are the same, but the new groups are written below the addends.

It is easier to see the totals for each column (12 and 14) and adding is easier because you add the two numbers you see and then add the 1.

1.
$$\begin{array}{r} 5,175 \\ +\ 3,967 \\ \hline {\scriptstyle 1}\ 2 \end{array}$$

2.
$$\begin{array}{r} 5,175 \\ +\ 3,967 \\ \hline {\scriptstyle 1\ 1}\ 42 \end{array}$$

3.
$$\begin{array}{r} 5,175 \\ +\ 3,967 \\ \hline {\scriptstyle 1\ 1\ 1}\ 142 \end{array}$$

4.
$$\begin{array}{r} 5,175 \\ +\ 3,967 \\ \hline {\scriptstyle 1\ 1\ 1}\ 9,142 \end{array}$$

It is important that your child maintains his or her home practice with basic multiplication and division.

Sincerely,
Your child's teacher

COMMON CORE

This unit includes the Common Core Standards for Mathematical Content for Number and Operations in Base Ten and Measurement and Data, 4.NBT.1, 4.NBT.2, 4.NBT.3, 4.NBT.4, 4.MD.2 and all Mathematical Practices.