

# Sample Standard/Traditional Algorithms

Our math program supports students in understanding math. We want students to be able to add, subtract, multiply and divide. We also want them to know how to reason, solve problems and apply math in real-life situations.

Based on students' needs, teachers can access a variety of step-by-step procedures to help build their students' confidence and skill in solving problems.

## What are algorithms?

Algorithms are step-by-step procedures used to solve problems. There are different variations for recording the steps for each operation (addition, subtraction, multiplication and division).

The emphasis in learning must be on understanding. To help develop understanding, connections should be made between the algorithm and place value, base-ten concepts and number properties.

## Samples

Some methods for recording steps may be more familiar than others. Here are **samples** of standard/traditional algorithms for all four operations, as seen in the K–9 authorized resources for mathematics. They might look familiar...

### Addition

$$\begin{array}{r} 1 \\ 429 \\ + 263 \\ \hline 692 \end{array}$$

### Subtraction

$$\begin{array}{r} 10 \\ 5015 \\ - 615 \\ \hline 338 \end{array}$$

### Multiplication

$$\begin{array}{r} 13 \\ 249 \\ \times 4 \\ \hline 996 \end{array}$$

$$\begin{array}{r} 34 \\ \times 22 \\ \hline 168 \\ + 680 \\ \hline 748 \end{array}$$

### Division

$$\begin{array}{r} 084 \\ 6 \overline{) 505} \\ \underline{-0} \downarrow \\ 50 \downarrow \\ \underline{-48} \downarrow \\ 25 \\ \underline{-24} \\ 1 \end{array}$$