

Three-Digit Subtraction, Part 2

Subtract multi-digit numbers using different strategies.	To solve problems using expanded notation subtraction , change numbers to expanded notation, line them up horizontally, subtract each column from left to right, and then add the differences. Regroup the values as necessary.	To solve problems using standard algorithm subtraction , stack and line up the digits based on their place value, then subtract one place value at a time from right to left. Regroup the values as necessary.
<u>Equation</u> 475 - 376	<u>Expanded Notation</u> $ \begin{array}{r} 300 \quad 160 \\ \cancel{400} + \cancel{70} + 15 \\ - 300 + 70 + 6 \\ \hline 0 + 90 + 9 \end{array} \quad \begin{array}{r} 0 \\ 90 \\ + 9 \\ \hline 99 \end{array} $	<u>Standard Algorithm</u> $ \begin{array}{r} 16 \\ \cancel{3} \cancel{7} 15 \\ \cancel{4} 7 5 \\ - 376 \\ \hline 99 \end{array} $

Directions: Solve the equations using both expanded notation and standard algorithm subtraction.

<u>Equation</u> 1. 126 - 113	<u>Expanded Notation</u> $ \begin{array}{r} 100 + 20 + 6 \\ - 100 + 10 + 3 \\ \hline 0 + 10 + 3 \end{array} \quad \begin{array}{r} 0 \\ 10 \\ + 3 \\ \hline 13 \end{array} $ <p style="text-align: center;">Answer = 13</p>	<u>Standard Algorithm</u> $ \begin{array}{r} 126 \\ - 113 \\ \hline 13 \end{array} $ <p style="text-align: center;">13</p>
<u>Equation</u> 2. 982 - 295	<u>Expanded Notation</u> $ \begin{array}{r} 800 \quad 170 \\ \cancel{900} + \cancel{80} + 12 \\ - 200 + 90 + 5 \\ \hline 600 + 80 + 7 \end{array} \quad \begin{array}{r} 600 \\ 80 \\ + 7 \\ \hline 687 \end{array} $ <p style="text-align: center;">Answer = 687</p>	<u>Standard Algorithm</u> $ \begin{array}{r} 17 \\ \cancel{8} \cancel{7} 12 \\ \cancel{9} 8 2 \\ - 295 \\ \hline 687 \end{array} $ <p style="text-align: center;">687</p>
<u>Equation</u> 3. 646 - 375	<u>Expanded Notation</u> $ \begin{array}{r} 500 \quad 140 \\ \cancel{600} + \cancel{40} + 6 \\ - 300 + 70 + 5 \\ \hline 200 + 70 + 1 \end{array} \quad \begin{array}{r} 200 \\ 70 \\ + 1 \\ \hline 271 \end{array} $ <p style="text-align: center;">Answer = 271</p>	<u>Standard Algorithm</u> $ \begin{array}{r} 5 \ 14 \\ \cancel{6} 4 6 \\ - 375 \\ \hline 271 \end{array} $ <p style="text-align: center;">271</p>