

Lesson 10: Subtraction Algorithms (Part 3)

- Let's learn another algorithm to subtract.

Warm-up: Notice and Wonder: Digits that Disappear

What do you notice? What do you wonder?

$$\begin{array}{r} 200 \quad 120 \\ \cancel{300} + \cancel{20} + 5 \end{array}$$

$$\begin{array}{r} 2 \quad 12 \\ \cancel{3} \quad \cancel{2} \quad 5 \end{array}$$

10.1: A New Subtraction Algorithm

Andre and Clare found the value of $528 - 271$. How they started their work is shown.

Andre's algorithm

$$\begin{array}{r}
 400 \quad 120 \\
 \cancel{500} + \cancel{20} + 8 \\
 - 200 + 70 + 1 \\
 \hline
 \end{array}$$

Clare's algorithm

$$\begin{array}{r}
 4 \quad 12 \\
 \cancel{5} \quad \cancel{2} \quad 8 \\
 - 2 \quad 7 \quad 1 \\
 \hline
 \end{array}$$

1. Complete both algorithms to find the difference.
2. Andre and Clare started their subtraction in different ways. How did their way of starting affect the steps needed to find the difference?

10.2: Try Clare's Algorithm

Clare used an algorithm to find the value of $538 - 156$.

Try using her algorithm to find the value of each difference.

$$\begin{array}{r}
 4 \ 13 \\
 \cancel{5} \ \cancel{3} \ 8 \\
 - \ 1 \ 5 \ 6 \\
 \hline
 3 \ 8 \ 2
 \end{array}$$

1. $691 - 358$

2. $926 - 584$

3. $317 - 182$

4. $492 - 325$