Unit 3 Lesson 9: Subtraction Algorithms (Part 2)

WU True or False: Does It Commute? (Warm up)

Student Task Statement

Decide if each statement is true or false. Be prepared to explain your reasoning.

- $4 \times 5 = 5 \times 4$
- $125 + 200 = 200 + 125$
- $300 - 100 = 100 - 300$

1 Revise Subtraction Work

Student Task Statement

Lin's work for finding the value of $428 - 156$ is shown.

$$
\begin{array}{r}
400 + 20 + 8 \\
-\quad 100 + 50 + 6 \\
\hline
300 + 30 + 2
\end{array}
$$

1. What error do you see in Lin's work?
2. What would you tell or show Lin so she can revise her work?

Activity Synthesis

$$
\begin{array}{r}
\color{blue}{300} \quad \color{blue}{120} \\
4\!\!\!/00 + 2\!\!\!/0 + 8 \\
-\quad 100 + 50 + 6 \\
\hline
200 + 70 + 2
\end{array}
$$

2 Try the Algorithm

Student Task Statement

Here is a subtraction algorithm you saw in an earlier lesson:

$$\begin{array}{r} \overset{80}{\cancel{}} \quad \overset{11}{\cancel{}} \\ 300 + \cancel{90} + \cancel{1} \\ -\quad 200 + 10 + 5 \\ \hline \end{array}$$

Try using this algorithm to find the value of each difference. Show your reasoning. Organize it so it can be followed by others.

1. $283 - 159$
2. $425 - 192$
3. $639 - 465$
4. $591 - 128$
5. $832 - 575$

Images for Activity Synthesis

$$\begin{array}{r} \overset{120}{\cancel{}} \\ 700 \quad \overset{}{\cancel{20}} \quad 12 \\ \cancel{800} + \cancel{30} + \cancel{2} \\ -\quad 500 + 70 + 5 \\ \hline 200 + 50 + 7 \end{array}$$