Grade 4 Unit 9
Lesson 4
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Unit 9 Lesson 4: Another Look at the Standard Algorithm

WU Number Talk: Differences (Warm up)

Student Task Statement

Find the value of each difference mentally.

- $87 - 24$
- $387 - 124$
- $6,387 - 129$
- $6,387 - 4,329$

1 Lots of Zeros

Student Task Statement

1. Find the value of each difference.

   a.
   $$\begin{array}{r} 7\;0\;0 \\ -\quad 1\;6 \\ \hline \end{array}$$

   b.
   $$\begin{array}{r} 7,0\;0\;0 \\ -\quad\quad 1\;6 \\ \hline \end{array}$$

   c.
   $$\begin{array}{r} 7\;0,0\;0\;0 \\ -\quad\quad 1\;6 \\ \hline \end{array}$$

   d.
   $$\begin{array}{r} 7\;0\;0,0\;0\;0 \\ -\quad\quad\quad 1\;6 \\ \hline \end{array}$$

2. Find the number that makes each expression true.

   a.
   $$\begin{array}{r} 4\;3 \\ +\quad\quad\quad \\ \hline 2\;0\;0 \end{array}$$

   b.
   $$\begin{array}{r} 4\;3 \\ +\quad\quad\quad \\ \hline 2,0\;0\;0 \end{array}$$

   c.

   d.

```
        4  3                                      4  3
  +  _____                        +  _____
     2 0, 0  0  0                          2 0 0, 0  0  0
```

2 Ways of Finding Differences

Student Task Statement

To find the value of $20{,}000 - 472$, Priya and Han set up their calculations differently.

Priya

```
   2 0, 0  0  0
 − _____
          4  7  2
   _____
```

Han

```
              4  7  2
 + _____
     2 0, 0  0  0
```

1. Use both methods to find the difference of 20,000 and 472.

2. Kiran uses another method. Explain how Kiran found the value of $20{,}000 - 472$.

$$472 + 8 = 480$$
$$480 + 20 = 500$$
$$500 + 500 = 1{,}000$$
$$1{,}000 + 19{,}000 = 20{,}000$$

$$19{,}000 + 500 + 20 + 8 = 19{,}528$$

3. Which method do you prefer? Or do you prefer another way? Explain your reasoning.

4. Find the value of $50{,}400 - 1{,}389$. Show your reasoning.

Images for Activity Synthesis

```
   1      1  1
       1, 3  8  9
 +  4 9, 0  1  1
   _____
   5 0, 4  0  0
```

```
                9
   4  10  3  10  10
   5   0,  4   0   0
 − _____
       1,  3   8   9
   _____
   4  9,  0   1   1
```