

## Grade 4 Unit 4

Lesson 18

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## Unit 4 Lesson 18: Standard Algorithm to Add and Subtract

### WU Estimation Exploration: What's the Difference? (Warm up)

#### Student Task Statement

Estimate the difference:  $42,050 - 3,790$ .

Record an estimate that is:

too low	about right	too high

### 1 Weekly Steps

#### Student Task Statement

A teacher uses an app on her cell phone to track her physical activity. Here is the data on the number of steps over 5 school days.

For each question, show your reasoning.

1. On which two days did she take the most steps? Over those two days, how many steps did she take altogether?
2. What is the difference in the number of steps she took on her most active day and on her least active day?
3. Between Wednesday and Thursday, her activity level dropped. How many fewer steps did she take on Thursday than Wednesday?

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**Monday**

Steps

6,285 steps

**Tuesday**

Steps

9,312 steps

**Wednesday**

Steps

9,587 steps

**Thursday**

Steps

7,403 steps

**Friday**

Steps

8,169 steps

## 2 Steps During the Weekend

### Student Task Statement

The teacher also keeps track of the number of steps she took during the weekend. The data from Saturday and Sunday of that same week are shown.

**Saturday**

Steps

17,375 steps

**Sunday**

Steps

14,024 steps

Here are two strategies to compute the total number of steps she took over the weekend.

Strategy A

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$$\begin{array}{r}
 10,000 + 7,000 + 300 + 70 + 5 \\
 + 10,000 + 4,000 + 0 + 20 + 4 \\
 \hline
 20,000 + 11,000 + 300 + 90 + 9 = 31,399
 \end{array}$$

Strategy B

$$\begin{array}{r}
 1 \\
 1 \ 7, \ 3 \ 7 \ 5 \\
 + 1 \ 4, \ 0 \ 2 \ 4 \\
 \hline
 3 \ 1, \ 3 \ 9 \ 9
 \end{array}$$

1. Analyze the strategies. Discuss with your partner:
  - What is happening in each strategy?
  - How are they alike? How are they different?
2. Use both strategies to find the difference between the number of steps the teacher took on Saturday and on Sunday.
3. During another week, the teacher took 26,815 steps during the weekdays and 11,403 steps during the weekend. Use both strategies to find the total number of steps she took that week.