Unit 4, Lesson 20

Add and Subtract within 1,000,000

Let's use the standard algorithm to add and subtract.

Warm-up

Notice and Wonder: Subtracting Tens of Thousands

What do you notice? What do you wonder?

A

$$\begin{array}{r} {}^{8}\cancel{9}\,{}^{13}\cancel{4}\,{}^{10}\cancel{0} \\ -\ 1\,2,\,7\,8\,6 \\ \hline \end{array}$$

B

$$\begin{array}{rrrrrrrrrrr} & & & & & {}^{800}\cancel{900} & + & {}^{130}\cancel{40} & + & {}^{10}\cancel{0} \\ - & 70{,}000 & + & 5{,}000 & + & 100 & + & 80 & + & 6 \\ \hline & 60{,}000 & + & 3{,}000 & + & 100 & + & 50 & + & 4 \end{array}$$

Activity 1

Add and Subtract Large Numbers

1. Use the standard algorithm to find the value of each sum and difference. If you get stuck, try writing the numbers in expanded form.

   a. $7{,}106 + 2{,}835$

   b. $8{,}179 - 3{,}599$

   c. $142{,}571 + 10{,}909$

d. $268{,}322 - 72{,}145$

2. Find the unknown value that would make each computation true.

a

$$\begin{array}{r} \square\,\square,\square\,\square\,\square \\ +\quad 6\,7,1\,8\,2 \\ \hline 1\,2\,9,4\,0\,0 \end{array}$$

b

$$\begin{array}{r} \square\,\square\,\square,\square\,\square\,\square \\ -\quad 2\,3\,4,6\,5\,0 \\ \hline 1\,9\,3,7\,1\,0 \end{array}$$

Activity 2

Spot Errors

1. Kiran tries to find the sum of 204,500 and 695. He isn't sure how to set up the calculation, so he writes 2 ideas. Which way is correct? Explain your reasoning.

A

$$\begin{array}{r} 20,450 \\ +\ 69,5 \\ \hline 89,950 \end{array}$$

B

$$\begin{array}{r} {\scriptstyle 1} \\ 204,500 \\ +\ \ \ \ 695 \\ \hline 205,195 \end{array}$$

2. Lin makes some errors when subtracting 4,325 from 61,870. Identify as many errors as you can find. Then show the correct way to subtract.

$$\begin{array}{r} {\scriptstyle 10} \quad {\scriptstyle 10} \\ 61,\cancel{1}8\,7\cancel{0} \\ -\ \ 4,325 \\ \hline 66,555 \end{array}$$