Name _____

Add and Subtract Decimals Through Thousandths
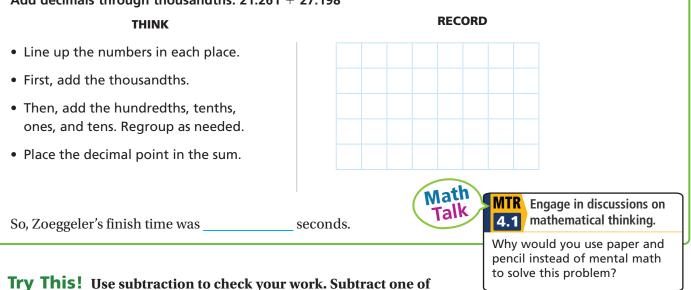
I Can add and subtract multi-digit numbers with decimals to the thousandths.
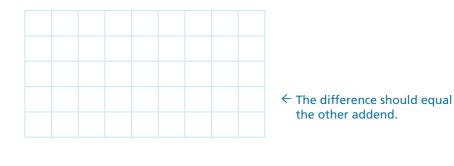
🔓 UNLOCK the Problem Real World

At the 2010 Winter Olympics, Armin Zoeggeler won the bronze medal in the men's luge event. In his fastest run, he completed the first interval in 21.261 seconds. It took him another 27.198 seconds to reach the finish line. What was Zoeggeler's finish time?

- Underline the sentence that tells you what you are trying to find.
- Circle the numbers you need to use.

Add decimals through thousandths. 21.261 + 27.198

THINK

- Line up the numbers in each place.

- First, add the thousandths.

- Then, add the hundredths, tenths, ones, and tens. Regroup as needed.

- Place the decimal point in the sum.

So, Zoeggeler's finish time was _____ seconds.

RECORD

Math Talk

MTR 4.1 Engage in discussions on mathematical thinking.

Why would you use paper and pencil instead of mental math to solve this problem?

Try This! **Use subtraction to check your work. Subtract one of the addends from the sum.**

Addition and subtraction are opposite, or **inverse operations**. You can use subtraction to check your answer to an addition problem.

← The difference should equal the other addend.

Example

Zoeggeler finished the first half of the run in 31.116 seconds. The second half took only 17.343 seconds. How many seconds faster was the second half of the run?

Estimate. 31 − 17 = _____

STEP 1

Line up the place values. Subtract the thousandths.

$$
\begin{array}{r}
31.11\textcolor{blue}{6} \\
-17.34\textcolor{blue}{3} \\
\hline
3
\end{array}
$$

STEP 2

Subtract the hundredths. Subtract the tenths. Regroup as needed.

$$
\begin{array}{r}
31.116 \\
-17.343 \\
\hline
3
\end{array}
$$

STEP 3

Subtract the ones and tens. Place the decimal point in the difference.

$$
\begin{array}{r}
31.116 \\
-17.343 \\
\hline
773
\end{array}
$$

So, Zoeggeler was _____ seconds faster in the second half of the run.

To check subtraction using the inverse operation, add the number you subtracted to the difference. The sum should equal the number you subtracted from.

Math Talk

MTR 3.1 Complete tasks with mathematical fluency.

Explain how you know without adding that the sum of 2.475 and 6.43 will result in a 5 in the thousandths place.

Try This! **Subtract. Then check your work.**

$$
\begin{array}{r}
4\,2.7\,8\,4 \\
-\quad 6.9\,8\,0 \\
\end{array}
$$

$$
\begin{array}{r}
+\quad 6.9\,8\,0 \\
\end{array}
$$

Share and Show
Math Board

Find the sum or difference.

1.
$$
\begin{array}{r}
1.845 \\
-0.357 \\
\end{array}
$$

2. $3.46 + 6.834$

✓ 3. $13 − 0.943$

✓ 4.
$$
\begin{array}{r}
0.254 \\
1.3 \\
+0.79 \\
\end{array}
$$