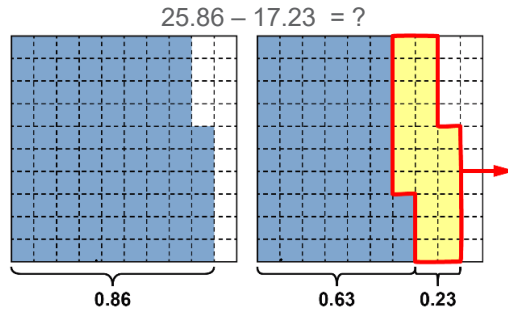


Activity 21 Assessment

Estimating Sums and Differences with Decimals

Conceptual Meaning of Addition and Subtraction of Decimals

Recognizes addition and subtraction situations and models concretely or pictorially to add or subtract to hundredths (using hundredths grids or Base Ten Blocks)



“86 hundredths – 23 hundredths =
63 hundredths
25 – 17 = 8”
(« 86 centièmes – 23 centièmes =
63 centièmes
25 – 17 = 8 »)
 $25.86 - 17.23 = 8.63$

Uses an understanding of place value to add or subtract decimals with hundredths (using standard algorithm)

$$25.86 - 17.23 = ?$$

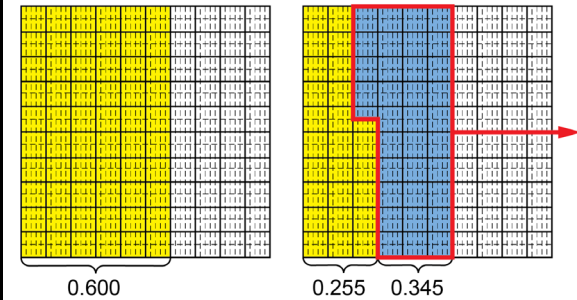
$$\begin{array}{r} 1 \quad 1 \\ 25.86 \\ - 17.23 \\ \hline 8.63 \end{array}$$

“I used the standard algorithm to subtract the hundredths, then the tenths, and then the whole numbers.”

(« J’ai utilisé l’algorithme usuel pour soustraire les centièmes, puis les dixièmes, et puis les nombres naturels. »)

Models to add or subtract decimals with thousandths (e.g., using thousandths grids or number lines)

$$43.600 - 1.345 = ?$$



“600 thousandths – 345 thousandths =
255 thousandths
43 – 1 = 42.”
(« 600 millièmes – 345 millièmes =
255 millièmes
43 – 1 = 42 »)
 $43.6 - 1.345 = 42.255$

Observations/Documentation

Activity 21 Assessment

Estimating Sums and Differences with Decimals

Conceptual Meaning of Addition and Subtraction of Decimals (cont'd)

Uses an understanding of place value to add or subtract decimals with thousandths (e.g., using standard algorithm)

$$\begin{array}{r} 591 \\ 43.\cancel{6}00 \\ - 1.345 \\ \hline 42.255 \end{array}$$

"I used the standard algorithm to subtract the thousandths, then the hundredths, then the tenths, and then the whole numbers."

(« J'ai utilisé l'algorithme usuel pour soustraire les millièmes, puis les centièmes, puis les dixièmes et enfin les nombres naturels. »)

Uses estimation and mental math strategies to check reasonableness of solutions

$$\begin{aligned} 43.6 - 1.345 &= 42.255 \\ 43.6 \text{ is close to } 44. \quad 1.345 \text{ is close to } 1. \\ 44 - 1 &= 43 \end{aligned}$$

"42.255 is the answer I calculated, and it is close to 43, so my answer is reasonable."

(« 42,255 est la réponse que j'ai calculée, et elle est proche de 43, donc ma réponse est vraisemblable. »)

Solves addition and subtraction problems flexibly, using a variety of strategies

Naomi swam 1.5 km, rode a bicycle for 35.29 km, and ran for 8.375 km. What was the total distance Naomi travelled?

$$1.5 \text{ km} + 35.29 \text{ km} + 8.375 \text{ km} = ?$$

$$\begin{array}{r} 11 \\ 1.500 \\ 35.290 \\ + 8.375 \\ \hline 45.165 \end{array}$$

"I wrote each number as a decimal with thousandths.

Naomi travelled 45.165 km in total."
(« J'ai écrit chaque nombre comme un nombre décimal avec des millièmes. Naomi a parcouru 45,165 km au total. »)

Observations/Documentation

Number

Activity 21 Assessment

Estimating Sums and Differences with Decimals