

Activity 32 Assessment

Operations with Fractions and Decimals Consolidation

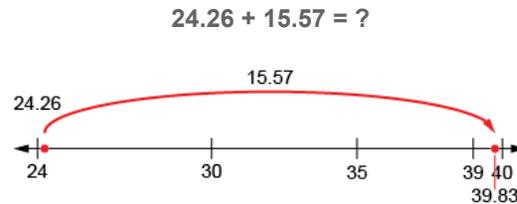
Conceptual Meaning of Addition and Subtraction of Decimals

Recognizes addition and subtraction situations and models concretely to add or subtract to hundredths



$$24.26 + 15.57 = 39.83$$

Models and symbolizes ways to solve problems using an open number line.



Uses an understanding of place value to add or subtract decimals with hundredths (decomposes both numbers).

$$24.26 + 15.57 = ?$$

$$24 + 15 = 39 \text{ (whole numbers)}$$

$$0.26 + 0.57 = 0.83 \text{ (decimals)}$$

$$39 + 0.83 = 39.83$$

“I decomposed both numbers, added the whole numbers, then added the hundredths.”

Observations/Documentation

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Operations with Fractions and Decimals Consolidation

Conceptual Meaning of Addition and Subtraction of Decimals (con't)

Uses an understanding of place value to decompose one number.

$$24.26 + 15.57 = ?$$

$$15.57 = 15 + 0.57$$

$$24.26 + 15 = 39.26$$

$$39.26 + 0.57 = 39.83$$

"I used place value to add on the second number."

Uses estimation and mental math strategies to check reasonableness of solutions.

$$4.497 + 7.299 + 3.512 = ?$$

"I used compatible numbers to estimate. 4.497 is close to 5, 7.299 is close to 7, and 3.512 is close to 3; $7 + 3 + 5 = 15$. I calculated 15.308, so my answer is reasonable."

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

$$36.462 - 25.108 = ?$$

$$36.462 - 25 = 11.462$$

$$11.462 - 0.108 = 11.354$$

| Tens | Ones | Tenths | Hundredths | Thousandths |
|------|------|--------|------------|-------------|
| 3 | 6 | 4 | 5 | 2 |
| 2 | 5 | 1 | 0 | 8 |
| 1 | 1 | 3 | 5 | 4 |

Observations/Documentation

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Adding and Subtracting Fractions with Like Denominators

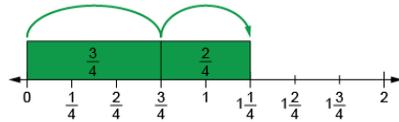
Concretely solves problems.

$$\frac{3}{4} + \frac{2}{4} = ?$$



“Because each whole is divided into fourths, I can add the parts.
3 fourths + 2 fourths = 5 fourths.
5 fourths make 1 whole and $\frac{1}{4}$.”

Models pictorially to solve problems.



$$\frac{3}{4} + \frac{2}{4} = \frac{5}{4} = 1\frac{1}{4}$$

“I modelled on the number line,
then counted on from $\frac{3}{4}$.
4 fourths, 5 fourths.”

Models symbolically to solve problems.

$$3\frac{1}{8} - \frac{6}{8} = ?$$

$$3\frac{1}{8} = \frac{25}{8}$$

$$\frac{25}{8} - \frac{6}{8} = \frac{19}{8}, \text{ or } 2\frac{3}{8}$$

“I converted $3\frac{1}{8}$ to $\frac{25}{8}$,
then subtracted. I checked my
answer using addition.”

Fluently and flexibly solves addition and subtraction problems.

$$1\frac{3}{10} + \frac{8}{10} + ? = 2\frac{7}{10}$$

$$1\frac{3}{10} + \frac{8}{10} = 1\frac{11}{10} = 2\frac{1}{10}$$

$$2\frac{7}{10} - 2\frac{1}{10} = \frac{6}{10}$$

$$2\frac{1}{10} + \frac{6}{10} = 2\frac{7}{10}$$

“ $\frac{6}{10}$ needs to be added to the other
fractions to equal $2\frac{7}{10}$.”

Observations/Documentation