

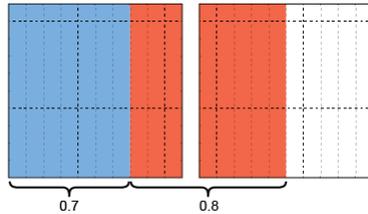
# Activity 40 Assessment

## 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 tenths

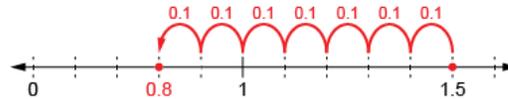
$$0.7 + 0.8 = 1.5$$



"7 tenths + 8 more tenths = 1 whole and 5 tenths"

Models and symbolizes ways to solve problems by using a number line

$$1.5 - 0.7 = ?$$



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

$$14.6 + 27.8 = ?$$

$$14 + 27 = 41 \text{ (whole numbers)}$$

$$0.6 + 0.8 = 1.4 \text{ (decimals)}$$

$$41 + 1.4 = 42.4$$

"I decomposed both numbers, added the whole numbers, then the tenths."

### Observations/Documentation

# Activity 40 Assessment

## 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

$$14.6 + 27.8 = ?$$

$$27.8 = 27 + 0.8$$

$$14.6 + 27 = 41.6$$

$$41.6 + 0.8 = 42.4$$

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

Uses estimation and mental math strategies to check reasonableness of solutions

$$25.86 - 17.23 = 8.63$$

$$26 - 17 = 9$$

"8.63 is the answer I calculated, and it is close to 9, so my answer is reasonable."

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

$$25.85 - 17.21 = ?$$

$$25.85 + 0.15 = 26$$

$$17.21 + 0.15 = 17.36$$

$$26 - 17.36 = 8.64$$

$$\begin{array}{r} 11 \\ 25.85 \\ - 17.21 \\ \hline 8.64 \end{array}$$

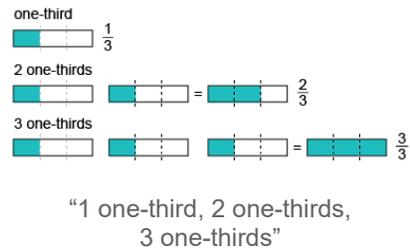
### Observations/Documentation

# Activity 40 Assessment

## Operations with Fractions and Decimals Consolidation

### Relationship Between Repeated Addition of Unit Fractions and Multiplication

Counts unit fractions



Concretely solves problems involving the repeated addition of unit fractions

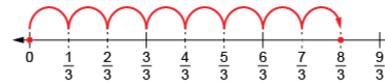
Miranda feeds her puppy, Atlas,  $\frac{1}{3}$  cup of food, 4 times per day. How much food does the puppy get in two days?



“1 one-third, 2 one-thirds, 3 one-thirds, 4 one-thirds, 5 one-thirds, 6 one-thirds, 7 one-thirds, 8 one-thirds”

$$\frac{8}{3} \text{ cups} = 2\frac{2}{3} \text{ cups}$$

Models symbolically and describes repeated addition of unit fractions



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

$$\frac{8}{3} = \frac{6}{3} + \frac{2}{3} = 2\frac{2}{3}$$

“Atlas gets  $2\frac{2}{3}$  cups of food per day.”

Uses multiplication of unit fractions to flexibly solve related problems

Atlas is fed 4 times per day for 2 days:  $4 \times 2 = 8$

$$8 \times \frac{1}{3} = \frac{8}{3}, \text{ or } 2\frac{2}{3}$$

“Atlas gets  $2\frac{2}{3}$  cups of food.”

### Observations/Documentation