

# Activity 7 Assessment

## Operations with Positive and Negative Fractions and Decimals

### Content: Operating with Rational Numbers

Solves an operational problem involving one type of rational number with like signs

"To find  $\frac{5}{8} + 1\frac{1}{2}$ , I wrote both fractions with a common denominator then added:  
 $\frac{5}{8} + 1\frac{4}{8} = 1 + \frac{9}{8} = 2\frac{1}{8}$ "

Solves an operational problem involving one type of rational number with opposite signs

"I thought of  $3 \times (-4.6)$  as 3 jumps of 4.6 to the left on a number line. So, that is  $3 \times 4.6 = 13.8$  to the left, or  $-13.8$ ."

Solves an operational problem involving different types of rational numbers

"To add  $-5.24$  and  $-\frac{7}{4}$ , I wrote  $-\frac{7}{4}$  as the decimal  $-1.75$ . Then I could think of  $-5.24 + (-1.75)$  as  $-5.24 - 1.75 = -6.99$ ."

Uses a variety of strategies to solve operational problems involving rational numbers

"To add  $-5.24$  and  $-\frac{7}{4}$ , I could write  $-5.24$  as  $-5\frac{24}{100}$ .  
 $-5\frac{24}{100} + (-\frac{7}{4})$   
 $= -5\frac{24}{100} + (-\frac{175}{100})$   
 $= -5\frac{199}{100}$ , or  $-6\frac{99}{100}$ "

### Observations/Documentation

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## Operations with Positive and Negative Fractions and Decimals

### Competency: Representing Operations with Rational Numbers

Represents an operation involving one type of rational number

“I used a number line to represent the multiplication of two integers.”

Represents an operation involving different types of rational numbers

“To multiply a fraction and a decimal, I rewrote the fraction as a decimal, then multiplied the decimals.”

Represents an operation involving rational numbers in more than one way

“To multiply a fraction and a decimal, I could also rewrite the decimal as a fraction, then multiply the fractions.”

Flexibly selects representation to efficiently solve a problem involving operations with rational numbers

“To multiply a fraction and a decimal, I find it more efficient to write the fraction as a decimal, then multiply as I would whole numbers, using estimation to place the decimal point.”

### Observations/Documentation

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