Number

Activity 19 Assessment

Solving Problems with Positive Rational Numbers

Solving Problems with Positive Rational Numbers			
Identifies the operation required to solve a problem involving positive rational numbers Raul worked $1\frac{4}{5}$ h. Sasha worked $2\frac{7}{10}$ h. How many hours have Raul and Sasha worked altogether? To find the number of hours worked, I would add how many hours each has worked.	Estimates the solution to a problem involving positive rational numbers To find the number of hours worked, the expression is $1\frac{4}{5} + 2\frac{7}{10}$. Estimate: 2 + 3 = 5 I estimate they worked about 5 h altogether.	Applies related operation strategies to solve a problem involving positive rational numbers Raul has worked $1\frac{4}{5}$ h. If Raul plans to work 4 h altogether, what fraction of his work has he completed? $1\frac{4}{5} \div 4 = \frac{9}{5} \times \frac{1}{4}$ $= \frac{9}{20}$ Raul has completed $\frac{9}{20}$ of 4 h.	Identifies and corrects errors in problems involving positive rational numbers Correct any errors in the solution. $6\frac{3}{4} \div 4\frac{1}{2} = (6 \div 4) + (\frac{3}{4} \div \frac{1}{2})$ $= 1\frac{1}{2} + 1\frac{1}{2}$ $= 3$ The answer is not reasonable, since 3 × 4.5 = 13.5. The wholes and parts of mixed numbers need to stay together. I would convert to improper fractions first. $6\frac{3}{4} \div 4\frac{1}{2} = \frac{27}{4} \div \frac{9}{2}$ $= \frac{27}{4} \div \frac{18}{4}$ $= \frac{27}{18}$ $= \frac{3}{2}$ $= 1\frac{1}{2}$
Observations/Documentation			