FRACTION DECOMPOSITION AND DIVISION

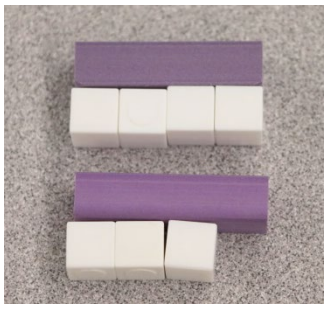
OPERATION K

Divide a fraction by a like-denominator fraction with a whole number result

Prompt #1: How many $\frac{1}{4}$ are there in $\frac{7}{4}$?

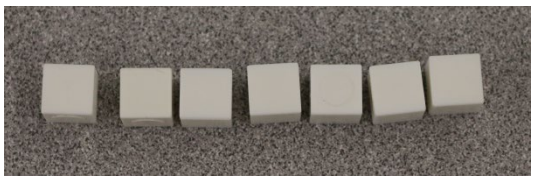
Sample 1

The student used two fourths relational rods (purple) to represent $\frac{8}{4}$.



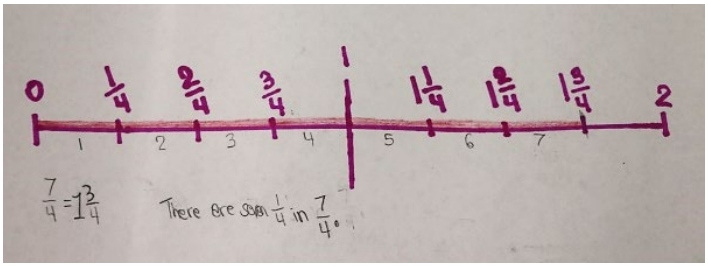
Then the student used seven $\frac{1}{4}$ rods (white) to represent $\frac{7}{4}$ of the $\frac{8}{4}$.

The student counted how many $\frac{1}{4}$ rods (white) they used to show $\frac{7}{4}$.



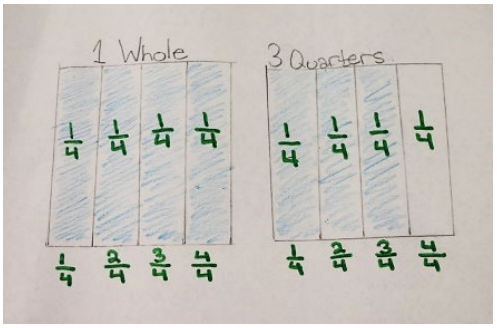
The student recognized that seven $\frac{1}{4}$ rods (white) are in $\frac{7}{4}$ and that $\frac{7}{4} \div \frac{1}{4} = 7$.

Sample 2



The student used a number line extending from 0 to 2 to show their thinking. They partitioned the number line into $\frac{1}{4}$ units. They noted that $\frac{7}{4} = 1\frac{3}{4}$ and used mixed fractions on the number line beyond 1. The student numbered each $\frac{1}{4}$ unit cumulatively until they reach $1\frac{3}{4}$, determining the answer of 7.

Sample 3



The student used an area model to show their thinking, drawing arrays representing each whole. The student partitioned each array into $\frac{1}{4}$ units and labelled each partition with the unit fraction showing the value as well as the cumulative total from $\frac{1}{4}$ to $\frac{4}{4}$. The student represented how $\frac{7}{4}$ can be divided by seven $\frac{1}{4}$.