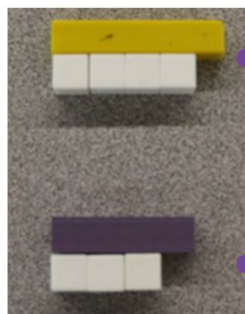


CHRIS' ICE CREAM CARTON

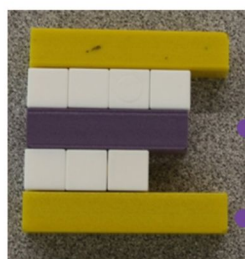
OPERATION L Divide a fraction by a like denominator unit fraction using models and symbols (e.g., $\frac{3}{8}$ divided by $\frac{1}{8}$)

Sample 1



This student uses relational rods to show $\frac{4}{5}$ kg.

The student uses relational rods to show $\frac{3}{4}$ of the whole carton.

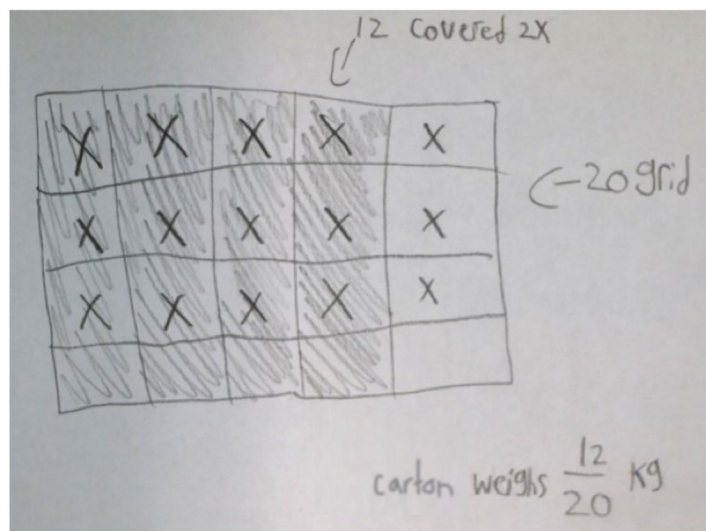


The student then brings the rods together to show the relationship between the two fractions. They stack the $\frac{4}{5}$ fraction above the $\frac{3}{4}$ fraction. This allows them to identify $\frac{3}{4}$ of $\frac{4}{5}$.

They then place the 5ths rod under the $\frac{3}{4}$ fraction to visually represent that $\frac{3}{4}$ of $\frac{4}{5}$ is $\frac{3}{5}$.

Sample 2

This sample demonstrates the use of an array. The student shaded $\frac{4}{5}$ of the grid, then made x's to represent $\frac{3}{4}$ of the grid. The overlapping area shows the result of multiplying $\frac{4}{5}$ by $\frac{3}{4}$. Labels would promote further factoring of $\frac{12}{20}$ to $\frac{3}{5}$, which could lead them to recognize the relationship between the numerators and denominators.



Sample 3

The student recognizes that the question is asking for " $\frac{3}{4}$ of $\frac{4}{5}$ ", demonstrating understanding of the operation of multiplication. The student initially partitions a number line into fifths and includes accurate labels. The student then further partitions each fifth into fourths and then uses hops to identify $\frac{3}{4}$ of each $\frac{1}{5}$, up to $\frac{4}{5}$. It is unclear how the models connect to the multiplication statement.

