

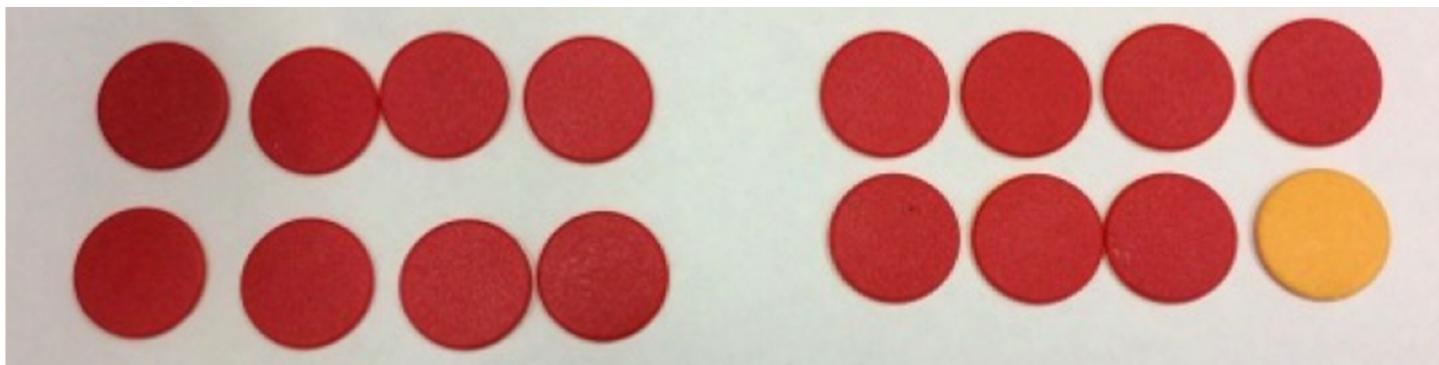
COMPOSING/DECOMPOSING $1\frac{7}{8}$

OPERATION E

Add and subtract fractions with unlike denominators (e.g., 2 and 7) using models and symbols

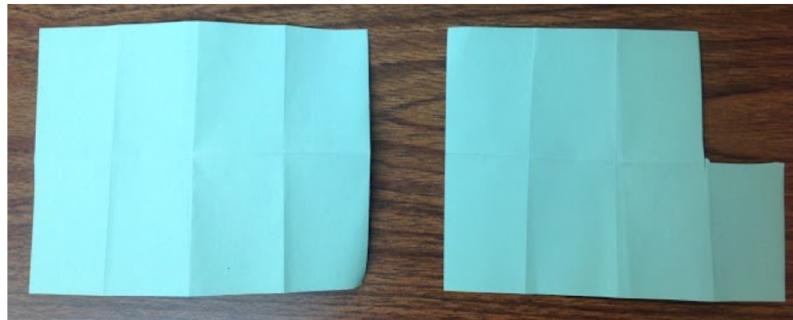
Sample 1

This student correctly uses a set model showing $1\frac{7}{8}$ are red. Notice that they include the additional yellow counter to show the context of two wholes. This strategy helps students to “see” fractional quantities in the context of the nearest whole; $1\frac{7}{8}$ is composed by adding 1 and $\frac{7}{8}$, and the $\frac{7}{8}$ itself is embedded within another whole (it is close to 2). It helps build student understanding of fractions as relative quantities to be able to visualize this fractional amount in relation to the nearest whole, to understand, for example, that $1\frac{7}{8}$ is $\frac{1}{8}$ away from 2.



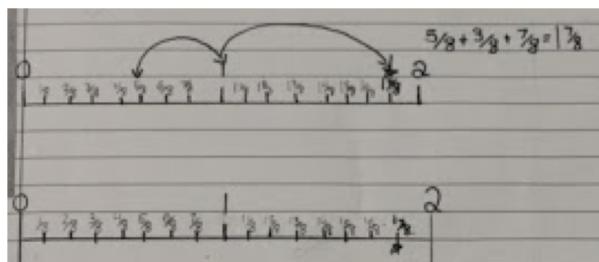
Sample 2

This student folds paper to represent $1\frac{7}{8}$.



Sample 4

This student demonstrates a good understanding of how a number line can be used to support composition of quantities using addition.



This student’s response to the challenge to list many possible number sentences that represent $1\frac{7}{8}$ shows flexibility in composing and decomposing fractional units.

Fraction equations

$$\begin{aligned} \frac{3}{8} + \frac{2}{8} &= \frac{5}{8} \\ 1 + \frac{7}{8} &= \frac{15}{8} \\ 4\frac{1}{8} + \frac{4}{8} + \frac{7}{8} &= \frac{15}{8} \\ \frac{3}{8} + \frac{2}{8} + \frac{3}{8} + \frac{2}{8} + \frac{7}{8} &= \frac{15}{8} \\ \frac{1}{8} + \frac{7}{8} &= \frac{15}{8} \\ 1\frac{7}{8} - 1 &= \frac{7}{8} \\ 2 - \frac{1}{8} &= \frac{15}{8} \end{aligned}$$

Sample 3

This student uses an everyday item (food) to create a set model that represents $1\frac{7}{8}$.

