

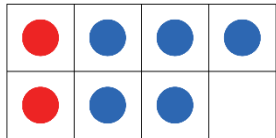
Activity 15 Assessment

Subtracting Fractions and Mixed Numbers

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Models subtraction of fractions or mixed numbers with like denominators

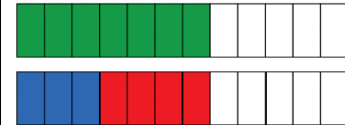
$$\frac{7}{8} - \frac{5}{8}$$



I used a frame with 8 parts. I drew 7 circles for $\frac{7}{8}$. I shaded 5 circles blue for $\frac{5}{8}$, then shaded the remaining circled red. The difference is 2. So, $\frac{7}{8} - \frac{5}{8} = \frac{2}{8}$.

Models subtraction of fractions or mixed numbers with unlike denominators

$$\frac{7}{12} - \frac{1}{4}$$



I divided one fraction strip (rectangle) into 12 equal pieces and another fraction strip (rectangle) into 4 equal pieces. I shaded 7 parts of the first fraction strip (rectangle) and 1 part of the second fraction strip (rectangle). I needed the sizes of the pieces to be the same, so I divided the 4 parts of the second fraction strip (rectangle) into 3 parts each; altogether this made 12 parts. This showed 7 of 12 parts and 3 of 12 parts being shaded. The difference is 4 parts. So, the answer is $\frac{4}{12}$, which is $\frac{1}{3}$.

Uses equivalent fractions to subtract fractions or mixed numbers

$$\begin{aligned} 1\frac{1}{2} - \frac{7}{6} &= \frac{3}{2} - \frac{7}{6} \\ &= \frac{9}{6} - \frac{7}{6} \\ &= \frac{2}{6} \\ &= \frac{1}{3} \end{aligned}$$

Solves a problem involving the subtraction of fractions or mixed numbers

A student studied $1\frac{1}{3}$ h for a math test and $2\frac{3}{4}$ h for a science test.

How much longer did the student study for the science test?

$$\begin{aligned} 2\frac{3}{4} - 1\frac{1}{3} &= (2 - 1) + \left(\frac{3}{4} - \frac{1}{3}\right) \\ &= (2 - 1) + \left(\frac{9}{12} - \frac{4}{12}\right) \\ &= 1 + \frac{5}{12} \\ &= 1\frac{5}{12} \end{aligned}$$

The student studied $1\frac{5}{12}$ h longer for the science test.

Observations/Documentation