

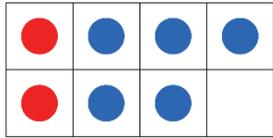
# Activity 21 Assessment

## Subtracting Fractions and Mixed Numbers

### Subtracting Fractions and Mixed Numbers

Models subtraction of fractions or mixed numbers with like denominators

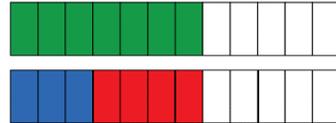
$$\frac{7}{8} - \frac{5}{8}$$



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 rectangle into 12 equal pieces and another rectangle into 4 equal pieces. I shaded 7 parts of the first rectangle and 1 part of the second rectangle. I needed the sizes of the pieces to be the same, so I divided the 4 parts of the second 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 for  $1\frac{5}{12}$  h more studying for the science test.

### Observations/Documentation