

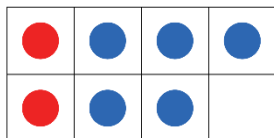
Activity 16 Assessment

Subtracting Fractions and Mixed Numbers

Subtracting Fractions and Mixed Numbers

Models subtraction of fractions or mixed numbers with like denominators

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



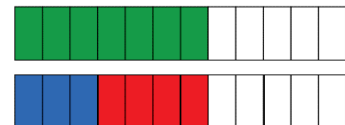
I used a frame with 8 parts. I drew 7 circles for $\frac{7}{8}$. I shaded 5 circles blue

for $\frac{5}{8}$, then shaded the remaining circled red. The difference is 2.

$$\text{So, } \frac{7}{8} - \frac{5}{8} = \frac{2}{8}.$$

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

$$1\frac{1}{2} - \frac{7}{6} = \frac{3}{2} - \frac{7}{6}$$

$$= \frac{9}{6} - \frac{7}{6}$$

$$= \frac{2}{6}$$

$$= \frac{1}{3}$$

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?

$$2\frac{3}{4} - 1\frac{1}{3} = (2 - 1) + (\frac{3}{4} - \frac{1}{3})$$

$$= (2 - 1) + (\frac{9}{12} - \frac{4}{12})$$

$$= 1 + \frac{5}{12}$$

$$= 1\frac{5}{12}$$

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

Observations/Documentation