Number

Activity 14 Assessment

Adding Fractions and Mixed Numbers

Adding Fractions and Mixed Numbers

Models addition of fractions or mixed numbers with like denominators

$\frac{3}{6} + \frac{2}{6}$

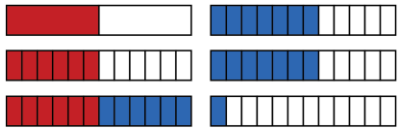
I used pattern blocks. A triangle is $\frac{1}{6}$.

So, 3 + 2 = 5 triangles make $\frac{5}{6}$.

So, $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$.

Models addition of fractions or mixed numbers with unlike denominators

$\frac{1}{2} + \frac{7}{12}$



I divided one fraction strip (rectangle) into 2 equal pieces and another fraction strip (rectangle) into 12 equal pieces. I shaded 1 part of the first fraction strip (rectangle) and 7 parts of the second fraction strip (rectangle). I needed the sizes of the pieces to be the same, so I divided the 2 parts of the first fraction strip (rectangle) into 6 parts each; altogether this made 12 parts. This showed 6 of 12 parts and 7 of 12 parts being shaded. Altogether, this combined to 13 parts. There are 12 parts in one whole, so the answer is $1\frac{1}{12}$.

Uses equivalent fractions to add fractions or mixed numbers

$1\frac{1}{2} + \frac{7}{6}$

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

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

$= \frac{16}{6}$

$= 2\frac{4}{6}$

$= 2\frac{2}{3}$

Solves a problem involving the addition of fractions or mixed numbers

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

How long did the student study in total?

$1\frac{3}{4} + 2\frac{1}{3}$

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

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

$= 3 + \frac{13}{12}$

$= 3 + 1 + \frac{1}{12}$

$= 4\frac{1}{12}$

The student studied for $4\frac{1}{12}$ h.

Observations/Documentation