

CHANGING WHOLE: PATTERN BLOCK CHALLENGE

UNIT F Compose and decompose fractions flexibility with models and symbols

SAMPLE 1

Using the Pattern Blocks

• If a hexagon is worth 1, what is:

- one green triangle worth? $= \frac{1}{6}$
- one red trapezoid worth? $= \frac{1}{2}$
- one blue rhombus worth? $= \frac{1}{3}$
- three green triangles worth? $= \frac{3}{6}$
- two blue rhombi worth? $= \frac{2}{3}$
- six red trapezoids worth? $= 3$

The student work includes several diagrams of hexagons. One hexagon is divided into two trapezoids, each labeled $\frac{1}{2}$, with an equation $= 1$ next to it. Another hexagon is divided into six triangles, each labeled $\frac{1}{6}$, with an equation $= 1$ next to it. A third hexagon is divided into three rhombi, each labeled $\frac{1}{3}$, with an equation $= 1$ next to it. There are also equations for combinations of blocks: $\frac{3}{6}$ for three triangles, $\frac{2}{3}$ for two rhombi, and 3 for six trapezoids.

This student appears to have counted-on using unit fractions.

Notice how this student shows that one whole is made up of 6 one-sixths.

Counting by unit fractions is a strategy this student uses consistently.

This student used shading to demonstrate visually that $\frac{3}{6}$ is equal to $\frac{1}{2}$.