Lesson 9

Problem Set

1. a. Answer provided

   b. Area model shows composed fractions; $\frac{3}{6} = \frac{3 \div 3}{6 \div 3} = \frac{1}{2}$

   c. Area model shows composed fractions; $\frac{5}{10} = \frac{5 \div 5}{10 \div 5} = \frac{1}{2}$

   d. Area model shows composed fractions; $\frac{4}{8} = \frac{4 \div 4}{8 \div 4} = \frac{1}{2}$ or $\frac{4}{8} = \frac{4 \div 2}{8 \div 2} = \frac{2}{4}$

2. a. Area model shows composed fractions; $\frac{2}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$

   b. Area model shows composed fractions; $\frac{2}{8} = \frac{2 \div 2}{8 \div 2} = \frac{1}{4}$

   c. Area model shows composed fractions; $\frac{2}{10} = \frac{2 \div 2}{10 \div 2} = \frac{1}{5}$

   d. Area model shows composed fractions; $\frac{2}{12} = \frac{2 \div 2}{12 \div 2} = \frac{1}{6}$

   e. The size of the fractional units increased.

   f. The number of total units decreased.

3. a. Area models prove $\frac{2}{6} = \frac{1}{3}$ and $\frac{3}{9} = \frac{1}{3}$

   b. $\frac{2}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$, $\frac{3}{9} = \frac{3 \div 3}{9 \div 3} = \frac{1}{3}$

4. a. Area models prove $\frac{2}{8} = \frac{1}{4}$ and $\frac{3}{12} = \frac{1}{4}$

   b. $\frac{2}{8} = \frac{2 \div 2}{8 \div 2} = \frac{1}{4}$, $\frac{3}{12} = \frac{3 \div 3}{12 \div 3} = \frac{1}{4}$

Exit Ticket

a. Area models prove $\frac{2}{6} = \frac{1}{3}$ and $\frac{4}{12} = \frac{1}{3}$

b. $\frac{2}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$, $\frac{4}{12} = \frac{4 \div 4}{12 \div 4} = \frac{1}{3}$

Homework

1. a. Answer provided

   b. Area model shows composed fractions; $\frac{4}{8} = \frac{4 \div 4}{8 \div 4} = \frac{1}{2}$ or $\frac{4}{8} = \frac{4 \div 2}{8 \div 2} = \frac{2}{4}$

   c. Area model shows composed fractions; $\frac{6}{12} = \frac{6 \div 6}{12 \div 6} = \frac{1}{2}$ or $\frac{6}{12} = \frac{6 \div 3}{12 \div 3} = \frac{2}{4}$ or $\frac{6}{12} = \frac{6 \div 2}{12 \div 2} = \frac{3}{6}$

   d. Area model shows composed fractions; $\frac{7}{14} = \frac{7 \div 7}{14 \div 7} = \frac{1}{2}$

2. a. Area model shows composed fractions; $\frac{2}{12} = \frac{2 \div 2}{12 \div 2} = \frac{1}{6}$

   b. Area model shows composed fractions; $\frac{2}{10} = \frac{2 \div 2}{10 \div 2} = \frac{1}{5}$

   c. Area model shows composed fractions; $\frac{2}{8} = \frac{2 \div 2}{8 \div 2} = \frac{1}{4}$

   d. Area model shows composed fractions; $\frac{2}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$

   e. The size of the fractional units increased.

   f. The number of total units decreased.

3. a. Area models prove $\frac{4}{8} = \frac{1}{2}$ and $\frac{6}{12} = \frac{1}{2}$

   b. $\frac{4}{8} = \frac{4 \div 4}{8 \div 4} = \frac{1}{2}$, $\frac{6}{12} = \frac{6 \div 6}{12 \div 6} = \frac{1}{2}$

4. a. Area models prove $\frac{4}{8} = \frac{1}{2}$ and $\frac{8}{16} = \frac{1}{2}$

   b. $\frac{4}{8} = \frac{4 \div 4}{8 \div 4} = \frac{1}{2}$, $\frac{8}{16} = \frac{8 \div 8}{16 \div 8} = \frac{1}{2}$