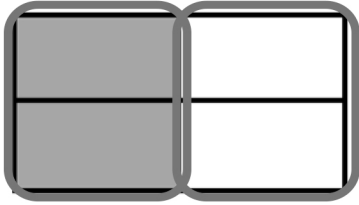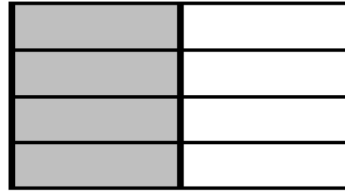Name _____ Date _____

Each rectangle represents 1.

1. Compose the shaded fractions into larger fractional units. Express the equivalent fractions in a number sentence using division. The first one has been done for you.
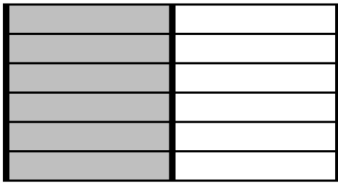
a.

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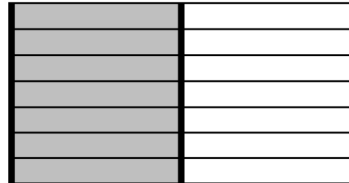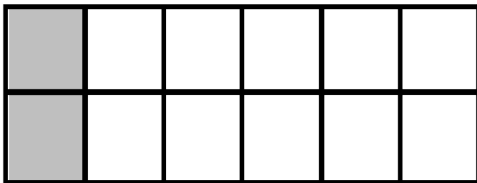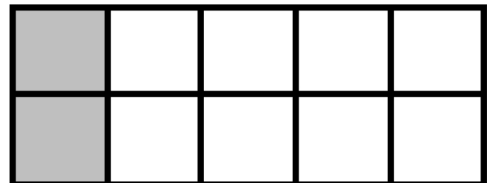
b.

c.

d.

2. Compose the shaded fractions into larger fractional units. Express the equivalent fractions in a number sentence using division.
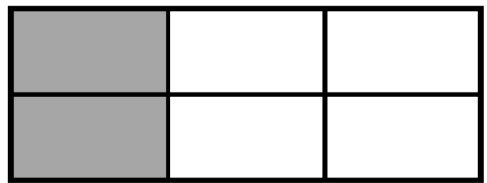
a.

b.

c.
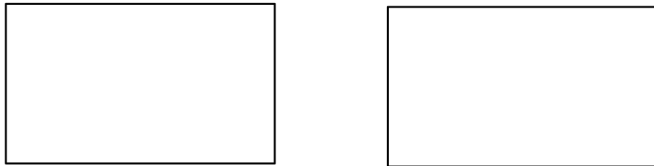
d.

e. What happened to the size of the fractional units when you composed the fraction?

f. What happened to the total number of units in the whole when you composed the fraction?

3. a. In the first area model, show 4 eighths. In the second area model, show 6 twelfths. Show how both fractions can be composed, or renamed, as the same unit fraction.

b. Express the equivalent fractions in a number sentence using division.

4. a. In the first area model, show 4 eighths. In the second area model, show 8 sixteenths. Show how both fractions can be composed, or renamed, as the same unit fraction.

b. Express the equivalent fractions in a number sentence using division.

Answer Key

1. a. Answer provided

   b. Model shows $\frac{4}{8} = \frac{4 \div 4}{8 \div 4} = \frac{1}{2}$ or $\frac{4}{8} = \frac{4 \div 2}{8 \div 2} = \frac{2}{4}$

   c. Model shows $\frac{6}{12} = \frac{6 \div 6}{12 \div 6} = \frac{1}{2}$ 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. Model shows $\frac{7}{14} = \frac{7 \div 7}{14 \div 7} = \frac{1}{2}$

2. a. Model shows $\frac{2}{12} = \frac{2 \div 2}{12 \div 2} = \frac{1}{6}$

   b. Model shows $\frac{2}{10} = \frac{2 \div 2}{10 \div 2} = \frac{1}{5}$

   c. Model shows $\frac{2}{8} = \frac{2 \div 2}{8 \div 2} = \frac{1}{4}$

   d. Model shows $\frac{2}{6} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$

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