

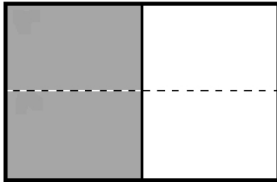
Name _____

Date _____

Each rectangle represents 1.

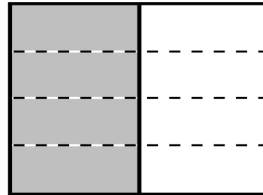
1. The shaded unit fractions have been decomposed into smaller units. Express the equivalent fractions in a number sentence using multiplication. The first one has been done for you.

a.

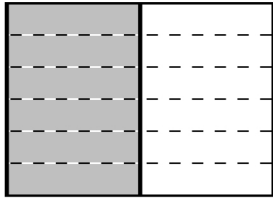


$$\frac{1}{2} = \frac{1 \times 2}{2 \times 2} = \frac{2}{4}$$

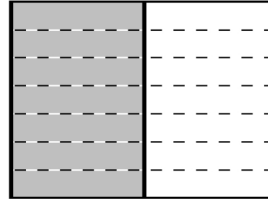
b.



c.

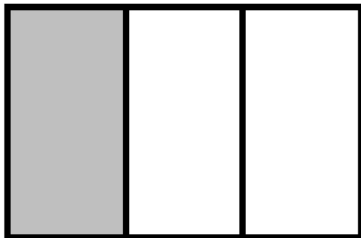


d.

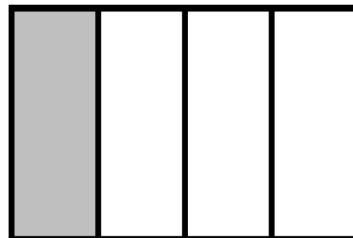


2. Decompose the shaded fractions into smaller units using the area models. Express the equivalent fractions in a number sentence using multiplication.

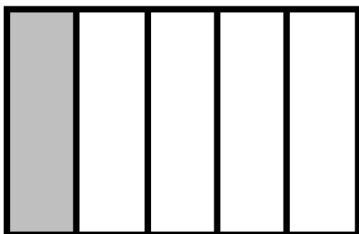
a.



b.



c.



d.



3. Draw three different area models to represent $\frac{1}{4}$ by shading.
Decompose the shaded fraction into (a) eighths, (b) twelfths, and (c) sixteenths.
Use multiplication to show how each fraction is equivalent to $\frac{1}{4}$.

a.

b.

c.

Answer Key

1.
 - a. Answer provided
 - b. $\frac{1}{2} = \frac{1 \times 4}{2 \times 4} = \frac{4}{8}$
 - c. $\frac{1}{2} = \frac{1 \times 6}{2 \times 6} = \frac{6}{12}$
 - d. $\frac{1}{2} = \frac{1 \times 7}{2 \times 7} = \frac{7}{14}$
2.
 - a. Answers will vary.
 - b. Answers will vary.
 - c. Answers will vary.
 - d. Answers will vary.
3.
 - a. Area model shows $\frac{1}{4}$ and is decomposed horizontally into eighths; $\frac{1}{4} = \frac{1 \times 2}{4 \times 2} = \frac{2}{8}$
 - b. Area model shows $\frac{1}{4}$ and is decomposed horizontally into twelfths; $\frac{1}{4} = \frac{1 \times 3}{4 \times 3} = \frac{3}{12}$
 - c. Area model shows $\frac{1}{4}$ and is decomposed horizontally into sixteenths; $\frac{1}{4} = \frac{1 \times 4}{4 \times 4} = \frac{4}{16}$