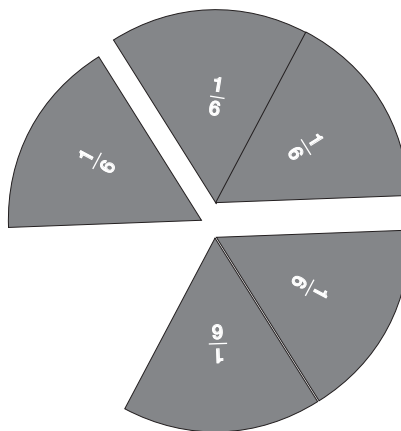
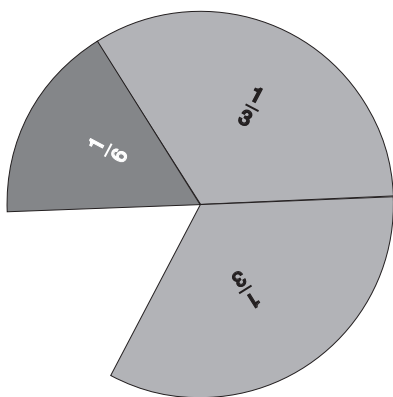


Use Fraction Circles to model the fractions shown.
Write the addition sentences modeled.

1.



Using Fraction Circles, model the fractions to find the sum. Sketch the models.
Write an addition sentence to show the sum.

2. $\frac{2}{5} + \frac{3}{10}$

Find each sum. Simplify.

3. $\frac{1}{3} + \frac{5}{12} =$ _____

4. $\frac{5}{6} + \frac{1}{3} =$ _____

5. $\frac{3}{4} + \frac{1}{12} =$ _____

6. $\frac{3}{5} + \frac{7}{10} =$ _____

7. $\frac{2}{5} + \frac{7}{10} =$ _____

8. $\frac{1}{4} + \frac{5}{8} =$ _____

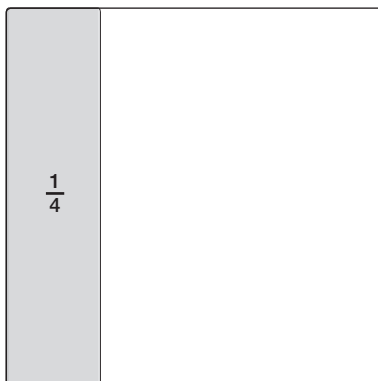
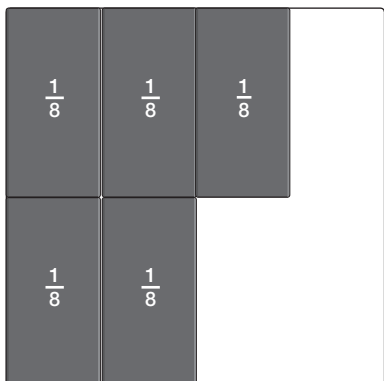
Name _____

Challenge! Write instructions for how to find the sum in Problem 8.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Use Fraction Squares to model the fractions shown. Use Fraction Squares to find fractions with the same denominators. Write the fractions and then find the difference.

1.



_____ - _____ = _____

Using Fraction Squares, model the subtraction problem. Sketch the model. Write the difference.

2. $\frac{5}{6} - \frac{1}{3}$

3. $\frac{3}{4} - \frac{3}{8}$

Find each difference.

4. $\frac{3}{4} - \frac{5}{12} =$ _____

5. $\frac{5}{6} - \frac{2}{3} =$ _____

6. $\frac{3}{5} - \frac{1}{10} =$ _____

7. $\frac{3}{4} - \frac{1}{12} =$ _____

8. $\frac{5}{8} - \frac{1}{4} =$ _____

9. $\frac{2}{5} - \frac{1}{10} =$ _____

10. $\frac{2}{3} - \frac{5}{12} =$ _____

11. $\frac{7}{12} - \frac{1}{4} =$ _____

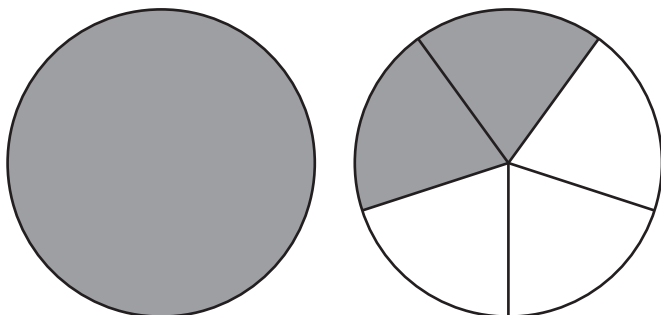
Name _____

Challenge! Explain how you can use addition to check that you subtracted correctly. Draw a picture to help,

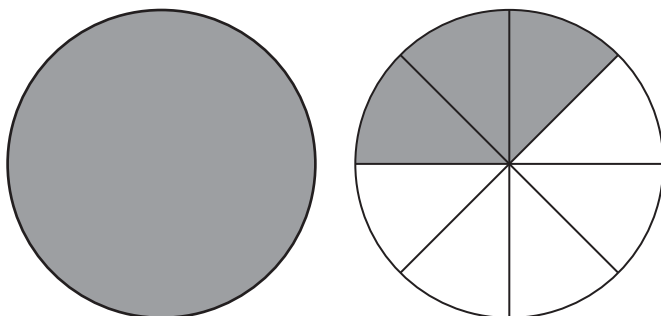
This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Use Fraction Circles to model each division problem. Write the problem as a fraction. Write the quotient as a mixed number.

1. $7 \div 5 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$



2. $11 \div 8 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$



Using Fraction Circles, model each division problem. Sketch the model. Write the problem as a fraction. Write the quotient as a mixed number.

3. $8 \div 6 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4. $9 \div 4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Write each quotient as a mixed number.

5. $14 \div 6 = \underline{\hspace{2cm}}$

6. $27 \div 5 = \underline{\hspace{2cm}}$

7. $15 \div 4 = \underline{\hspace{2cm}}$

8. $9 \div 7 = \underline{\hspace{2cm}}$

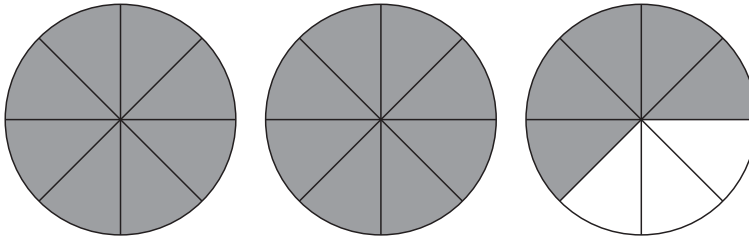
Name _____

Challenge! Explain how knowing $\frac{6}{5} \times 5 = 6$ can help you solve $6 \div 5 = \frac{6}{5}$.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Use the model to solve the problem. Write the answer as an improper fraction and as a mixed number.

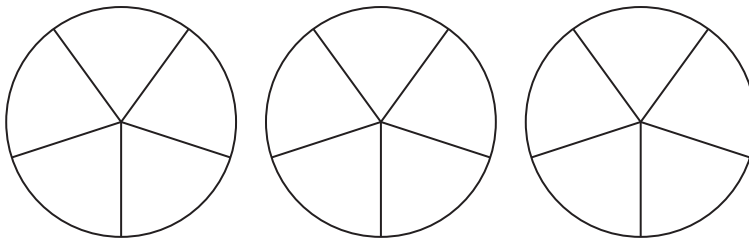
1. Sarah ran 7 miles in one week. Her younger brother ran $\frac{3}{8}$ as far. How many miles did her brother run?



$$\frac{3}{8} \times 7 = 3 \times 7 \div 8 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ miles}$$

Draw a model to solve the problem. Write the equation.

2. Jershom made 6 baskets in a basketball game. He got $\frac{2}{5}$ as many rebounds as baskets. How many rebounds did Jershom get?



$$\frac{2}{5} \times 6 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ rebounds}$$

Multiply to complete the equations.

3. $\frac{2}{9} \times 6 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4. $\frac{3}{7} \times 21 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5. $\frac{7}{8} \times 4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6. $\frac{2}{5} \times 9 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7. $\frac{1}{7} \times 28 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8. $\frac{2}{3} \times 27 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

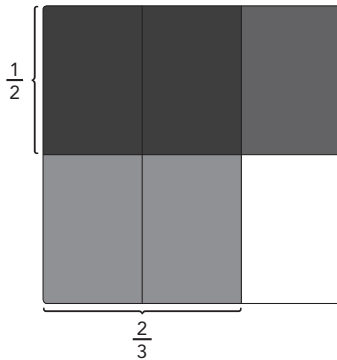
Name _____

Challenge! Create a story context for the expression $\frac{3}{8} \times 5$, and solve the problem.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Use Fraction Squares to model the problem. Write the solution.

1. Alex wants to cover a bulletin board with cloth. The board measures $\frac{2}{3}$ yard by $\frac{1}{2}$ yard. What is the area of the bulletin board?



$$\frac{2}{3} \times \frac{1}{2} = \underline{\hspace{2cm}} \text{ square yard}$$

Using Fraction Squares, model the problem. Sketch the model. Write the multiplication sentence that shows the solution.

2. A frame measures $\frac{5}{6}$ foot by $\frac{3}{4}$ foot. What is the area of the frame?

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ square foot}$$

Find each product.

3. $\frac{1}{2} \times \frac{4}{5} = \underline{\hspace{2cm}}$

4. $\frac{1}{3} \times \frac{3}{4} = \underline{\hspace{2cm}}$

5. $\frac{2}{5} \times \frac{3}{5} = \underline{\hspace{2cm}}$

6. $\frac{1}{3} \times \frac{9}{10} = \underline{\hspace{2cm}}$

7. $\frac{3}{10} \times \frac{5}{8} = \underline{\hspace{2cm}}$

8. $\frac{2}{3} \times \frac{3}{8} = \underline{\hspace{2cm}}$

Name _____

Challenge! Create a story context for the expression $\frac{2}{3} \times \frac{4}{5}$, and solve the problem.

[illegible]

Use Fraction Towers to model the equivalent fractions. Complete the number sentence.

1. What is $\frac{1}{2}$ of $\frac{3}{4}$?



$$\frac{1}{2} \times \frac{3}{4} = \underline{\hspace{2cm}}$$

2. What is $\frac{1}{4}$ of $\frac{2}{3}$?



$$\frac{1}{4} \times \frac{2}{3} = \underline{\hspace{2cm}}$$

Using Fraction Towers, model each product. Sketch the model. Write a number sentence for each product.

3. What is $\frac{1}{2}$ of $\frac{5}{6}$?

4. What is $\frac{1}{3}$ of $\frac{3}{4}$?

Find each product.

5. $\frac{1}{2} \times \frac{1}{6}$

6. $\frac{1}{2} \times \frac{2}{5}$

7. $\frac{1}{5} \times \frac{5}{6}$

8. $\frac{1}{2} \times \frac{3}{5}$

9. $\frac{1}{3} \times \frac{6}{8}$

10. $\frac{1}{2} \times \frac{3}{10}$

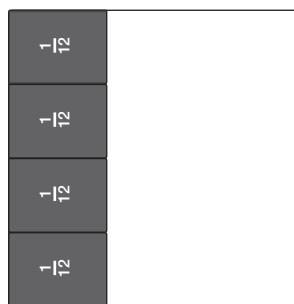
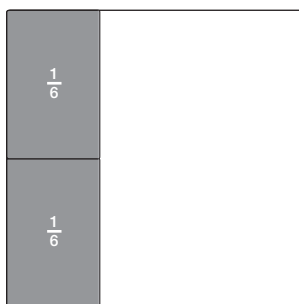
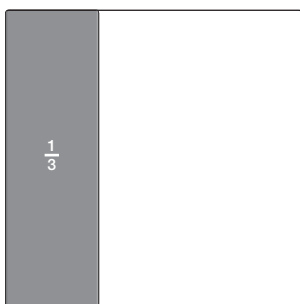
Name _____

Challenge! Explain why $\frac{1}{2} \times \frac{2}{3}$ is less than 1. Draw a picture to help.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

**Use Fraction Squares to model the fraction compared to 1.
Complete each equation.**

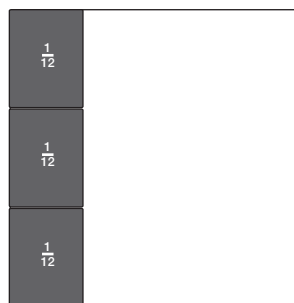
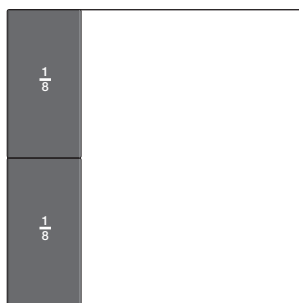
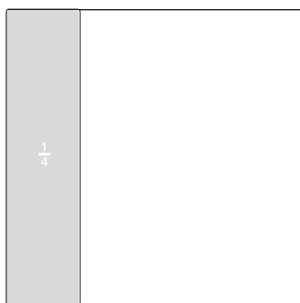
1.



$$\frac{1}{3} \div 2 = \underline{\hspace{2cm}}$$

$$\frac{1}{3} \div 4 = \underline{\hspace{2cm}}$$

2.



$$\frac{1}{4} \div 2 = \underline{\hspace{2cm}}$$

$$\frac{1}{4} \div 3 = \underline{\hspace{2cm}}$$

Using Fraction Squares, model the division. Sketch the models. Write the quotient.

3. $\frac{1}{5} \div 2 = \underline{\hspace{2cm}}$

Find the quotient

4. $\frac{1}{2} \div 7 = \underline{\hspace{2cm}}$

5. $\frac{1}{3} \div 3 = \underline{\hspace{2cm}}$

6. $\frac{1}{4} \div 4 = \underline{\hspace{2cm}}$

7. $\frac{1}{5} \div 4 = \underline{\hspace{2cm}}$

8. $\frac{1}{6} \div 2 = \underline{\hspace{2cm}}$

9. $\frac{1}{8} \div 2 = \underline{\hspace{2cm}}$

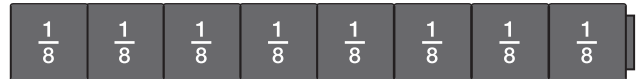
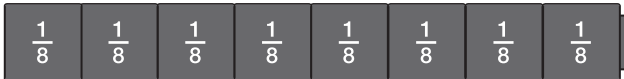
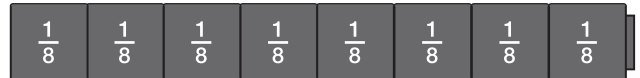
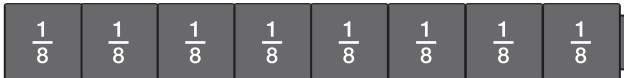
Name _____

Challenge! What method do you use to divide a unit fraction by a whole number when you don't use the Fraction Squares? Why does it work?

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Use Fraction Towers to model the problem. Write the quotient.

1. Hugo has 4 sheets of green card stock he wants to cut into Earth Day bookmarks. How many bookmarks can he make if each one is $\frac{1}{8}$ of a sheet?



$$4 \div \frac{1}{8} = \underline{\hspace{2cm}}$$

**Using Fraction Towers, model the problem. Sketch the model.
Write the equation that shows the solution.**

2. How many $\frac{2}{3}$ foot pieces of fabric can be cut from 4 yards of fabric?

$$\underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Divide.

3. $4 \div \frac{1}{5} = \underline{\hspace{2cm}}$

4. $8 \div \frac{1}{4} = \underline{\hspace{2cm}}$

5. $6 \div \frac{3}{8} = \underline{\hspace{2cm}}$

6. $15 \div \frac{3}{10} = \underline{\hspace{2cm}}$

7. $9 \div \frac{1}{3} = \underline{\hspace{2cm}}$

8. $9 \div \frac{3}{8} = \underline{\hspace{2cm}}$

Name _____

Challenge! Create a story that requires the expression $8 \div \frac{2}{5}$, and solve the problem.

[illegible]