

Name: _____

College: _____

4th Grade Math

Week of: 3/8-3/12

Spelman



College®



1867
HOWARD

UNIVERSITY

Monday

Date: March 8

Learning Target: Decompose fractions as a sum of unit fractions using tape diagrams.

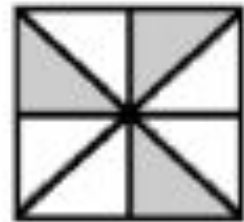
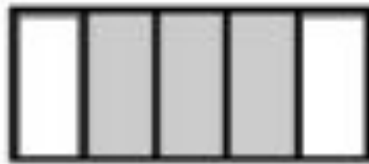
Standards: 3.OA.3 4.NF.4

Do Now:

A school has 17 tables in the cafeteria. Each table seats 12 students. What is the greatest number of students that can be seated at these tables?

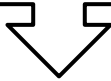
- A** 114
- B** 184
- C** 194
- D** 204

Concept Development



Write number sentences to decompose $\frac{5}{6}$ as a sum of fractions with the same denominator.

Let's Work Together!



Mrs. Salcido cut a small birthday cake into 6 equal pieces for 6 children. One child was not hungry, so she gave the birthday boy the extra piece. Draw a tape diagram to show how much cake each of the five children received.

Step 1: Draw and shade a tape diagram of the given fraction.

Step 2: Record the decomposition as a sum of unit fractions.

Step 3: Record the decomposition of the fraction two more ways.

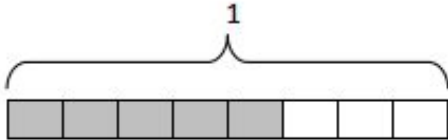
$$\frac{6}{8}$$

$$\frac{7}{10}$$

You Try!

- Step 1: Draw and shade a tape diagram of the given fraction.
Step 2: Record the decomposition as a sum of unit fractions.
Step 3: Record the decomposition of the fraction two more ways.
(The first one has been done for you.)

a. $\frac{5}{8}$



$$\frac{5}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$$

$$\frac{5}{8} = \frac{2}{8} + \frac{2}{8} + \frac{1}{8}$$

$$\frac{5}{8} = \frac{2}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$$

b. $\frac{9}{10}$

c. $\frac{3}{2}$

2. Step 1: Draw and shade a tape diagram of the given fraction.

Step 2: Record the decomposition of the fraction in three different ways using number sentences.

a. $\frac{7}{8}$

b. $\frac{5}{3}$

c. $\frac{7}{5}$

d. $1\frac{1}{3}$

EXIT TICKET

Name: _____
BCCSG

Date: _____
Howard / Spelman

Learning Target: Decompose fractions as a sum of unit fractions using tape diagrams.

Standards: 3.OA.3 4.NF.4

Directions: Answer the questions below. Make sure you show work for every question. Record your answer on Google Classroom

Step 1: Draw and shade a tape diagram of the given fraction.

Step 2: Record the decomposition of the fraction in three different ways using number sentences.

$$\frac{4}{7}$$

Grade:

Tuesday

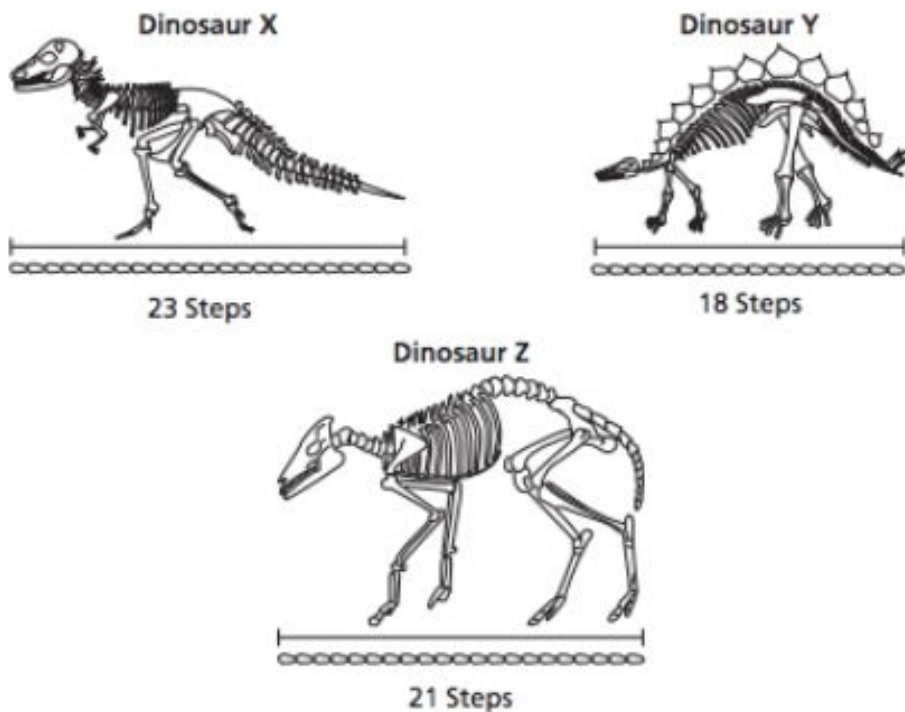
Date: March 9

Learning Target: Decompose non-unit fractions and represent them as a whole number times a unit fraction using tape diagrams.

Standards: 4.OA.4 4.NF.3

Do Now:

Bradley saw 3 dinosaur skeletons at the museum. To measure the length of each skeleton, he counted the number of his shoe lengths from the head to the tail, as shown in the picture below.



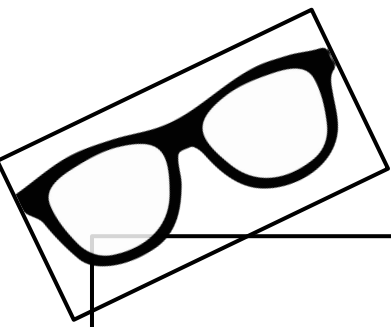
Bradley's shoe length is 17 cm long. Which list shows the dinosaur skeletons that were more than 320 centimeters long?

- A Dinosaur X and Dinosaur Y
- B Dinosaur X and Dinosaur Z
- C Dinosaur Y and Dinosaur Z
- D Dinosaur X, Dinosaur Y, and Dinosaur Z

Concept Development

Mrs. Beach prepared copies for 4 reading groups. She made 6 copies for each group. How many copies did Mrs. Beach make?

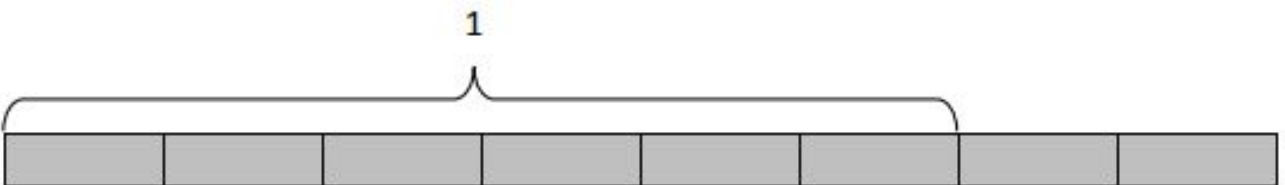
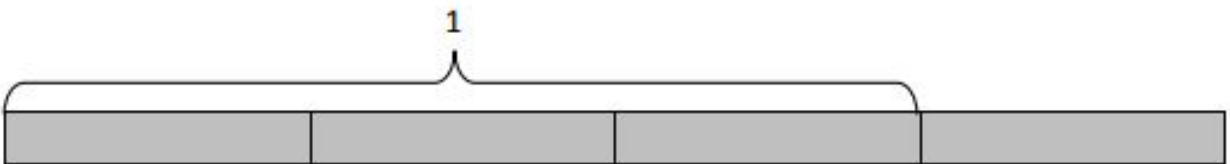
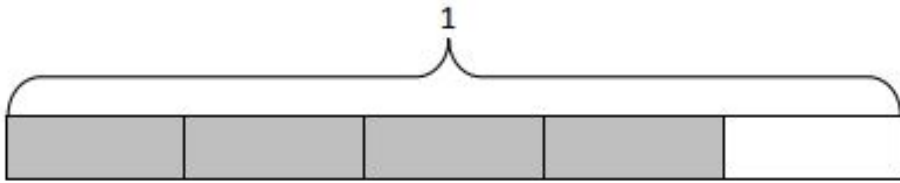
- a. Draw a tape diagram.
- b. Write both an addition and a multiplication sentence to solve. Discuss with a partner why you are able to add or multiply to solve this problem.
- c. What fraction of the copies is needed for 3 groups? To show that, shade the tape diagram.



Watch Me!

$$\frac{3}{4}$$

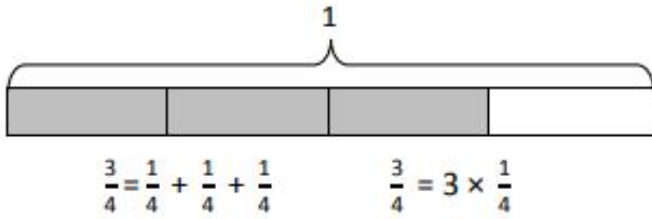
Let's Work Together!



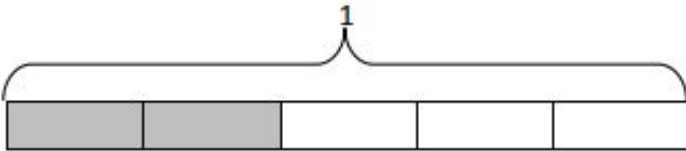
You Try!

1. Decompose each fraction modeled by a tape diagram as a sum of unit fractions. Write the equivalent multiplication sentence. The first one has been done for you.

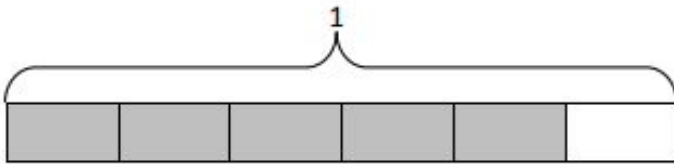
a.



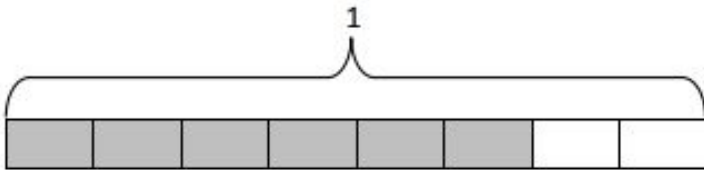
b.



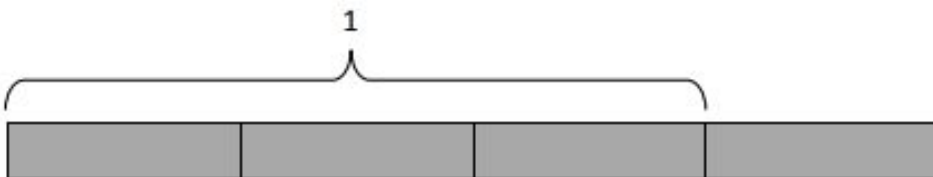
c.



d.



e.



Draw a tape diagram, and record the given fraction's decomposition into unit fractions as a multiplication sentence.

a. $\frac{4}{5}$

b. $\frac{5}{8}$

c. $\frac{7}{9}$

d. $\frac{7}{4}$

EXIT TICKET

Name: _____
BCCSG

Date: _____
Howard / Spelman

Learning Target: Decompose non-unit fractions and represent them as a whole number times a unit fraction using tape diagrams.

Standards: 4.OA.4 4.NF.3

Directions: Answer the questions below. Make sure you show work for every question. Record your answer on Google Classroom

1. Decompose each fraction modeled by a tape diagram as a sum of unit fractions. Write the equivalent multiplication sentence.

a.



b.



2. Draw a tape diagram, and record the given fraction's decomposition into unit fractions as a multiplication sentence.

$$\frac{6}{9}$$

Grade: _____

Wednesday

Date: March 10

Learning Target:Decompose fractions into sums of smaller unit fractions using tape diagrams.

Standards: 3.NF.3 4.NF.3

Do Now:

Use each digit shown below to create a 5-digit number with the greatest value and a 5-digit number with the least value. Each digit can only be used once in each number. Then write a number sentence using $>$, $<$, or $=$ to compare the two numbers you created.

2, 9, 1, 3, 8

Show your work.

Concept Development

Count by ones to 6.

Count by sixths to 6 sixths. Start at 0 sixths

Let's count by thirds to 6 thirds. Start at 0 thirds.

How many thirds are in 1? How many thirds are in 2?

Let's Work Together!



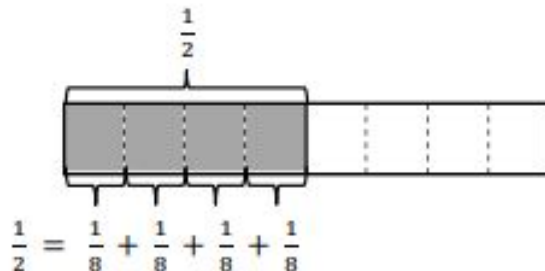
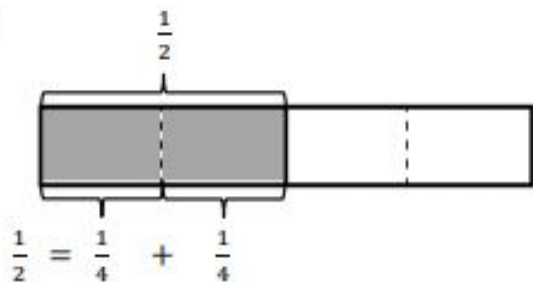
Use tape diagrams to represent the decomposition of $1\frac{3}{5}$ as the sum of unit fractions.

Use tape diagrams to represent the decomposition of $\frac{1}{5}$ and $\frac{2}{5}$ as the sum of smaller unit fractions.

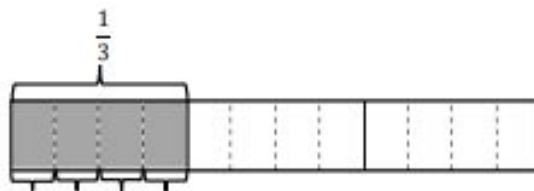
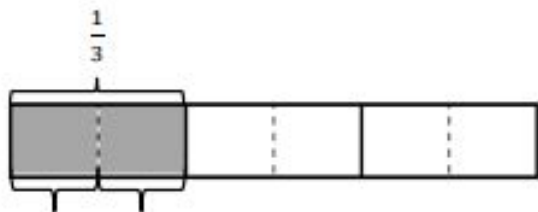
You Try!

1. The total length of each tape diagram represents 1. Decompose the shaded unit fractions as the sum of smaller unit fractions in at least two different ways. The first one has been done for you.

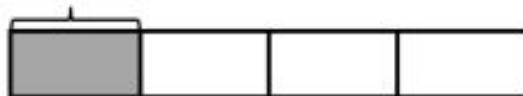
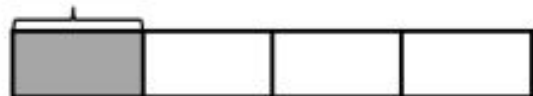
a.



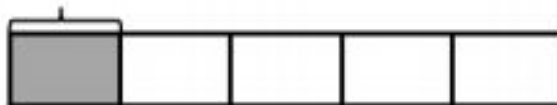
b.



c.

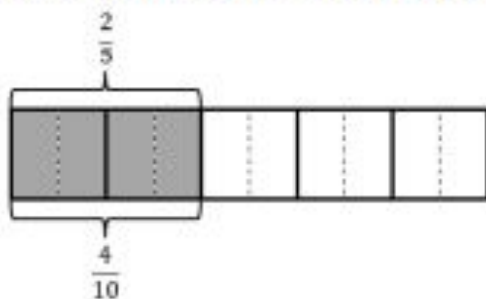


d.



Draw and label tape diagrams to prove the following statements. The first one has been done for you.

a. $\frac{2}{5} = \frac{4}{10}$



b. $\frac{2}{6} = \frac{4}{12}$

c. $\frac{3}{4} = \frac{6}{8}$

d. $\frac{3}{4} = \frac{9}{12}$

4. Show that $\frac{1}{2}$ is equivalent to $\frac{4}{8}$ using a tape diagram and a number sentence.

5. Show that $\frac{2}{3}$ is equivalent to $\frac{6}{9}$ using a tape diagram and a number sentence.

EXIT TICKET

Name: _____
BCCSG

Date: _____
Howard / Spelman

Learning Target: Decompose fractions into sums of smaller unit fractions using tape diagrams.

Standards: 3.NF.3 4.NF.3

Directions: Answer the questions below. Make sure you show work for every question. Record your answer on Google Classroom

1. The total length of the tape diagram represents 1. Decompose the shaded unit fraction as the sum of smaller unit fractions in at least two different ways.



2. Draw a tape diagram to prove the following statement.

$$\frac{2}{3} = \frac{4}{6}$$

Grade:

Thursday

Date: March 11

Learning Target: Decompose unit fractions using area models to show equivalence

Standards: 3.NF.3 4.NF.3

Do Now:

- 51 Aisha and Dave play the same computer game and compare their highest score each morning. Today, Aisha said that she scored thirty thousand twenty-five points, and Dave said that he scored thirty thousand two hundred five points.

Write a number sentence using one of the symbols, $>$, $<$, or $=$, to correctly compare Aisha's number of points to Dave's number of points.

Answer _____

Concept Development

A loaf of bread was cut into 6 equal slices. Each of the 6 slices was cut in half to make thinner slices for sandwiches.

Mr. Beach used 4 slices. His daughter said, "Wow! You used $\frac{2}{6}$ of the loaf!" His son said, "No. He used $\frac{4}{12}$."

Let's Work Together!



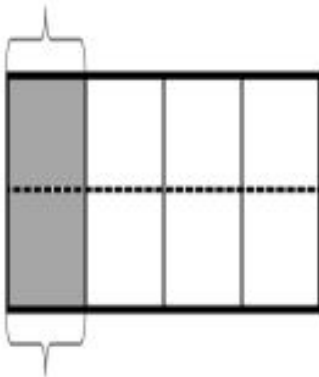
Problem 1: Draw an area model to illustrate that $\frac{1}{5}$ is equal to $\frac{2}{10}$.

Problem 2: Decompose $\frac{1}{3}$ as $\frac{4}{12}$ represented in an area model and as the sum and product of unit fractions.

You Try!

1. Draw horizontal lines to decompose each rectangle into the number of rows as indicated. Use the model to give the shaded area as both a sum of unit fractions and as a multiplication sentence.

a. 2 rows

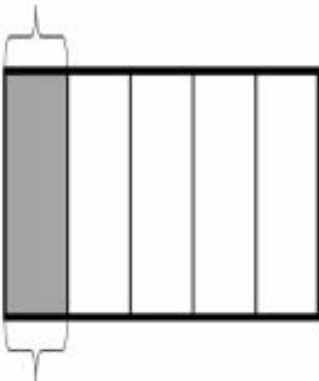


$$\frac{1}{4} = \frac{2}{8}$$

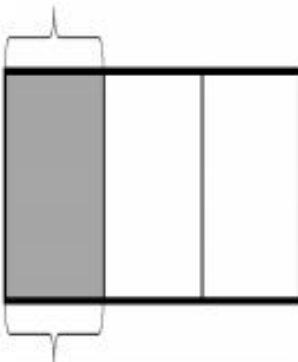
$$\frac{1}{4} = \frac{1}{8} + \frac{1}{8}$$

$$\frac{1}{4} = 2 \times \frac{1}{8}$$

b. 2 rows



c. 4 rows



2. Draw area models to show the decompositions represented by the number sentences below. Represent the decomposition as a sum of unit fractions and as a multiplication sentence.

a. $\frac{1}{2} = \frac{3}{6}$

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

c. $\frac{1}{2} = \frac{5}{10}$

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

e. $\frac{1}{3} = \frac{4}{12}$

f. $\frac{1}{4} = \frac{3}{12}$

EXIT TICKET

Name: _____

BCCSG

Date: _____

Howard / Spelman

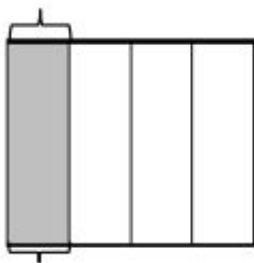
Learning Target: Decompose unit fractions using area models to show equivalence

Standards: 3.NF.3 4.NF.3

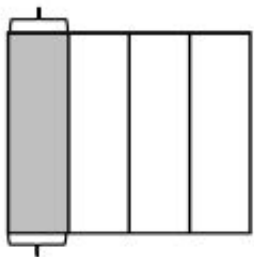
Directions: Answer the questions below. Make sure you show work for every question. Record your answer on Google Classroom

1. Draw horizontal lines to decompose each rectangle into the number of rows as indicated. Use the model to give the shaded area as both a sum of unit fractions and as a multiplication sentence.

a. 2 rows



b. 3 rows



2. Draw an area model to show the decomposition represented by the number sentence below. Represent the decomposition as a sum of unit fractions and as a multiplication sentence.

$$\frac{3}{5} = \frac{6}{10}$$

Friday

Date: March 12

Learning Target: Decompose fractions using area models to show equivalence.

Standards: 4.NF.1 4.NF.4

Do Now:

- 47 Last month, a store sent 2,014 e-mails to customers about sales. The number of e-mails sent the month before was 2,104.

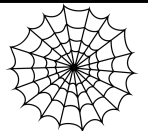
Use one of the symbols $<$, $>$, or $=$ to compare the two numbers of e-mails sent. Explain how you used the digits to determine your answer.

Answer

Concept Development

Use area models to prove that $\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$, $\frac{1}{2} = \frac{3}{6} = \frac{6}{12}$, and $\frac{1}{2} = \frac{5}{10}$. What conclusion can you make about $\frac{4}{8}$, $\frac{6}{12}$, and $\frac{5}{10}$? Explain.

Note Catcher:



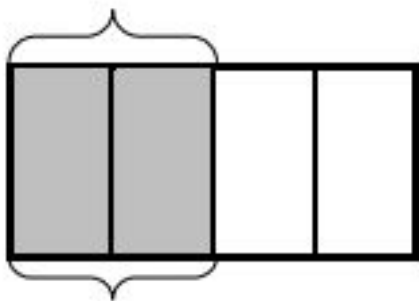
I wonder?

I notice:

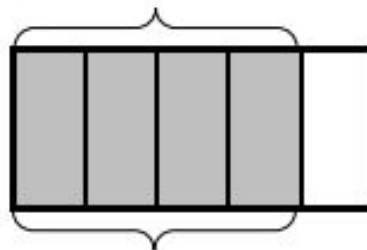
Let's Work Together!



Eighths



Fifteenths



Draw area models to show the decompositions represented by the number sentences below. Express each as a sum and product of unit fractions. Use parentheses to show the relationship between the number sentences.

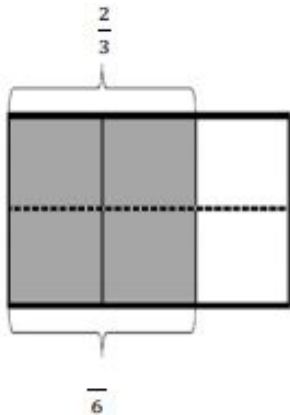
a. $\frac{2}{3} = \frac{4}{6}$

b. $\frac{4}{5} = \frac{8}{10}$

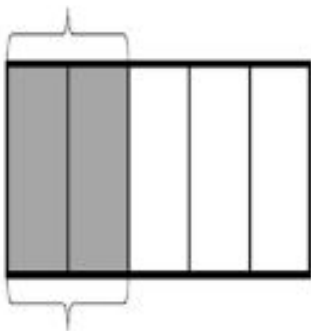
You Try!

Each rectangle represents 1. Draw horizontal lines to decompose each rectangle into the fractional units as indicated. Use the model to give the shaded area as a sum and as a product of unit fractions.

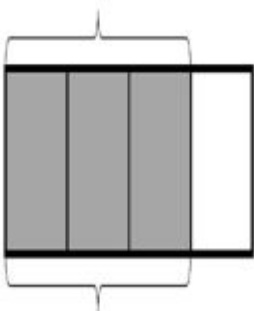
a. Sixths



b. Tenths



c. Twelfths



2. Draw area models to show the decompositions represented by the number sentences below. Express each as a sum and product of unit fractions. Use parentheses to show the relationship between the number sentences.

a. $\frac{3}{5} = \frac{6}{10}$

b. $\frac{3}{4} = \frac{6}{8}$

3. Step 1: Draw an area model for a fraction with units of thirds, fourths, or fifths.
Step 2: Shade in more than one fractional unit.
Step 3: Partition the area model again to find an equivalent fraction.
Step 4: Write the equivalent fractions as a number sentence. (If you've written a number sentence like this one already on this Problem Set, start over.)

EXIT TICKET

Name: _____
BCCSG

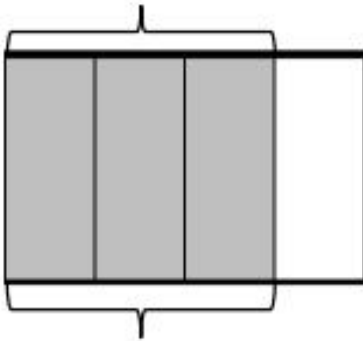
Date: _____
Howard / Spelman

Learning Target: Decompose fractions using area models to show equivalence.

Standards: 4.NF.1 4.NF.4

Directions: Answer the questions below. Make sure you show work for every question. Record your answer on Google Classroom

1. The rectangle below represents 1. Draw horizontal lines to decompose the rectangle into eighths. Use the model to give the shaded area as a sum and as a product of unit fractions. Use parentheses to show the relationship between the number sentences.



2. Draw an area model to show the decomposition represented by the number sentence below.

$$\frac{4}{5} = \frac{8}{10}$$