EUREKA MATH PUSD

Solutions

Exit Tickets

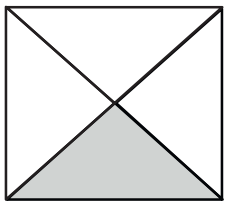
SOLUTIONS

GRADE 3
MODULE 5

Version 3

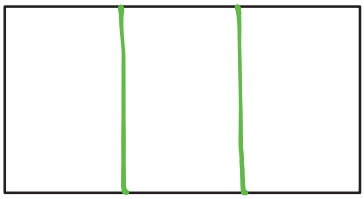
Name _____ Date _____

1. Name the fraction that is shaded.

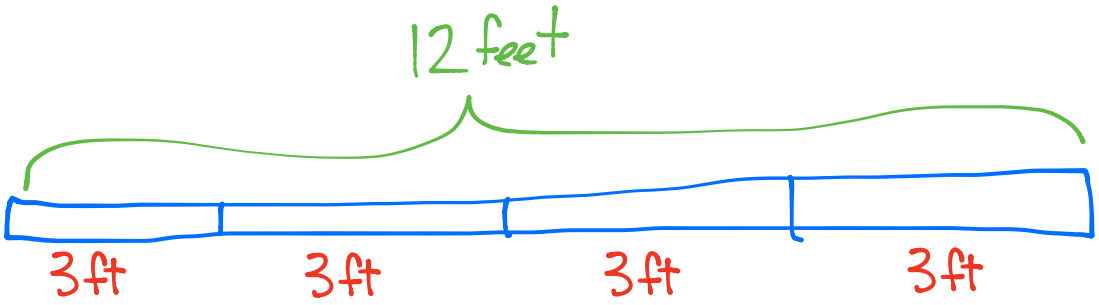


one fourth

2. Estimate to partition the rectangle into thirds.



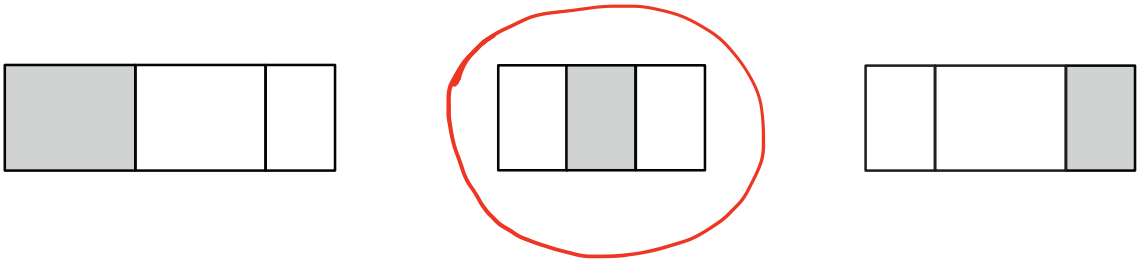
3. A plumber has 12 feet of pipe. He cuts it into pieces that are each 3 feet in length. What fraction of the pipe would one piece represent? (Use your strip from the lesson to help you.)



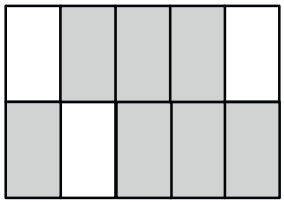
Each piece is one fourth.

Name _____ Date _____

1. Circle the model that correctly shows 1 third shaded.

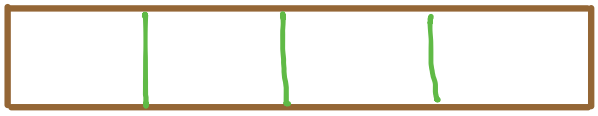


2.



There are 10 equal parts in all. 7 are shaded.

3. Michael bakes a piece of garlic bread for dinner. He shares it equally with his 3 sisters. Show how Michael and his 3 sisters can each get an equal share of the garlic bread.

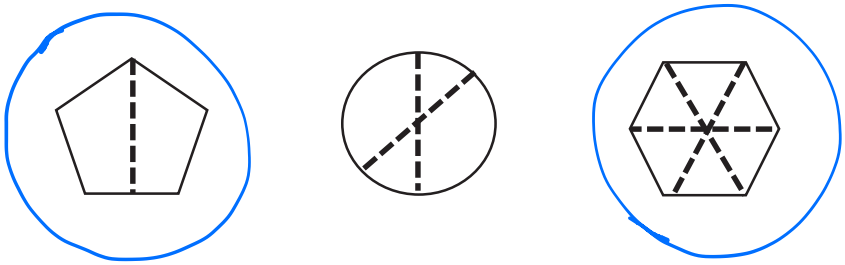


Each person gets one fourth.

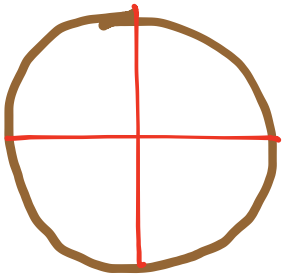
Name _____ Date _____

1.  4 seventhes are shaded.

2. Circle the shapes that are divided into equal parts.



3. Steven wants to equally share his pizza with his 3 sisters. What fraction of the pizza does he and each sister receive?



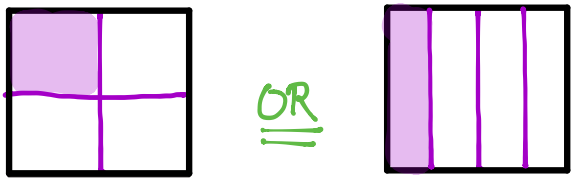
Steven and each sister would each receive one fourth.

He and each sister receive one fourth

Name _____ Date _____

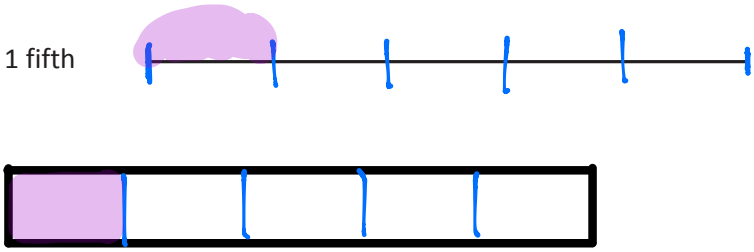
Each shape is 1 whole. Estimate to equally partition the shape and shade to show the given fraction.

1. 1 fourth



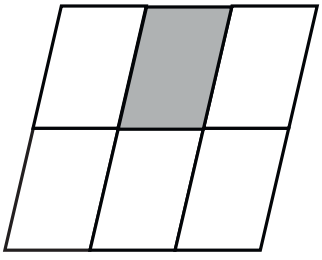
Other answers are possible.

2. 1 fifth



Teachers might consider changing this line into a tape diagram because students were not shown lines during the Concept Development.

3. The shape represents 1 whole. Write the fraction for the shaded part.



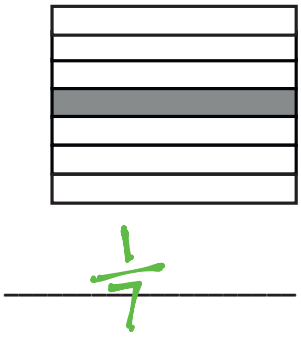
The shaded part is $\frac{1}{6}$.

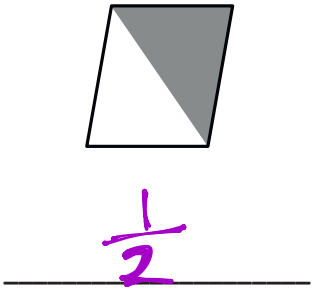
Name _____ Date _____

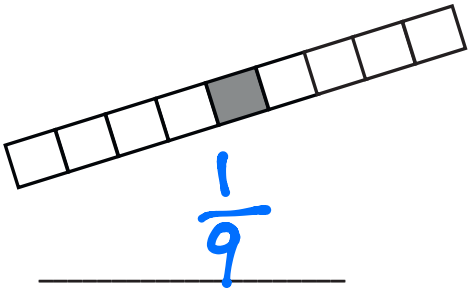
1. Fill in the chart.

	Total Number of Equal Parts	Total Number of Equal Parts Shaded	Unit Form	Fraction Form
	6	1	1 sixth	$\frac{1}{6}$

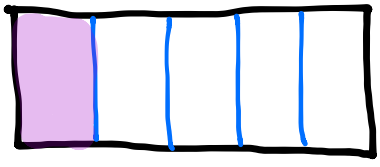
2. Each image below is 1 whole. Write the fraction that is shaded.



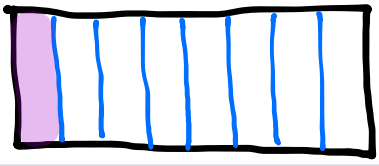




3. Draw two identical rectangles. Partition one into 5 equal parts. Partition the other rectangle into 8 equal parts. Label the unit fractions and shade 1 equal part in each rectangle. Use your rectangles to explain why $\frac{1}{5}$ is bigger than $\frac{1}{8}$.



1 fifth



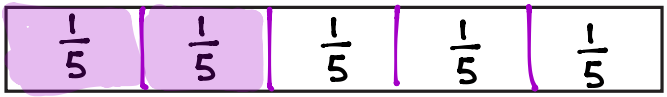
1 eighth

1 fifth is larger than 1 eighth because its whole is cut into fewer parts, so each piece is bigger than each eighth.

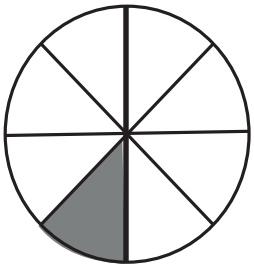
Name _____ Date _____

1. Complete the number sentence. Estimate to partition the strip equally. Write the unit fraction inside each unit. Shade the answer.

2 fifths = $\frac{2}{5}$



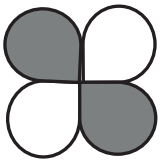
2.



a. What fraction of the circle is shaded? $\frac{1}{8}$

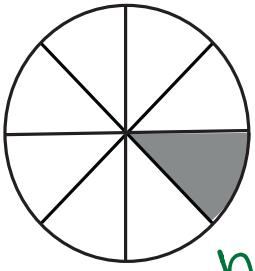
b. What fraction of the circle is not shaded? $\frac{7}{8}$

3. Complete the chart.

	Total Number of Equal Parts	Total Number of Shaded Equal Parts	Unit Fraction	Fraction Shaded
	4	2	$\frac{1}{4}$	$\frac{2}{4}$

Name _____ Date _____

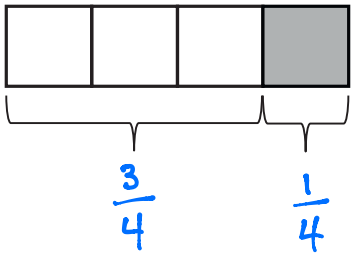
1. Write the fraction that is not shaded.



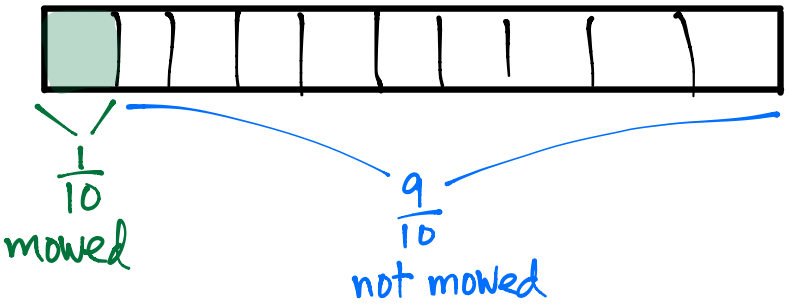
$\frac{7}{8}$ is not shaded

2. There are 6 sixths in 1 whole.

3. The fraction strip is 1 whole. Write fractions to label the shaded and unshaded parts.



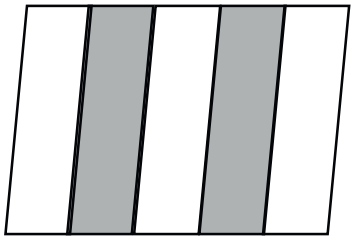
4. Justin mows part of his lawn. Then, his lawnmower runs out of gas. He has not mowed $\frac{9}{10}$ of the lawn. What part of his lawn is mowed?

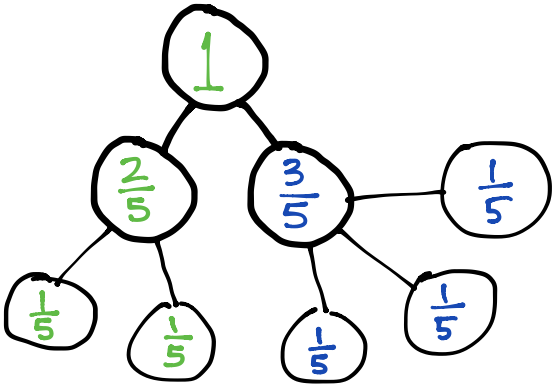


Justin mowed $\frac{1}{10}$ of the lawn.

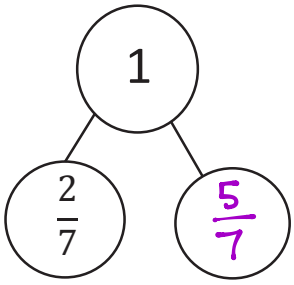
Name _____ Date _____

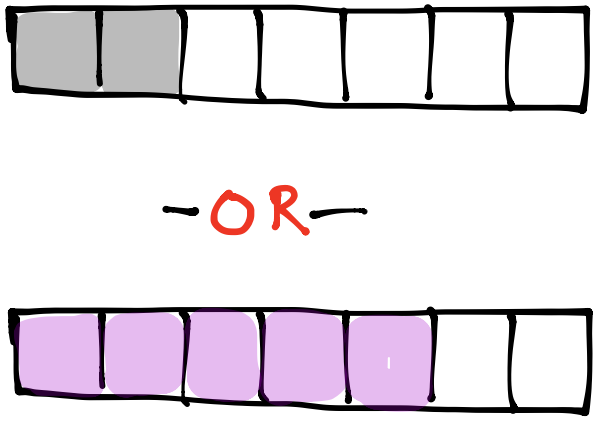
1. Draw a number bond that shows the shaded and the unshaded parts of the shape below. Then, show each part decomposed into unit fractions.





2. Complete the number bond. Draw a shape that has shaded and unshaded parts that match the completed number bond.

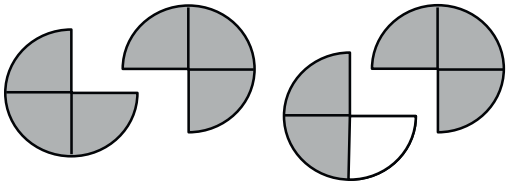




Teachers will need to be flexible when scoring this questions since students can choose to shade either $\frac{2}{7}$ or $\frac{5}{7}$ of the shape.

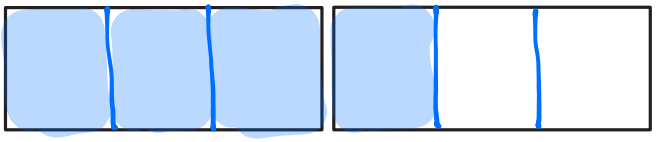
Name _____ Date _____

1. Each shape represents 1 whole. Fill in the chart.

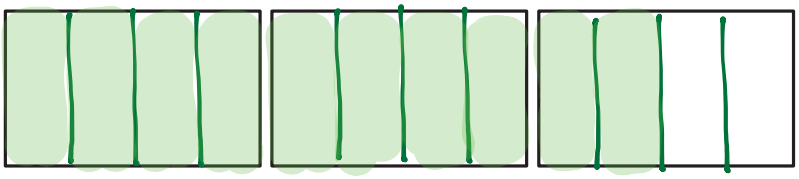
	Unit Fraction	Total Number of Units Shaded	Fraction Shaded
	$\frac{1}{3}$	11	$\frac{11}{3}$

2. Estimate to draw and shade units on the fraction strips. Solve.

a. 4 thirds = $\frac{4}{3}$

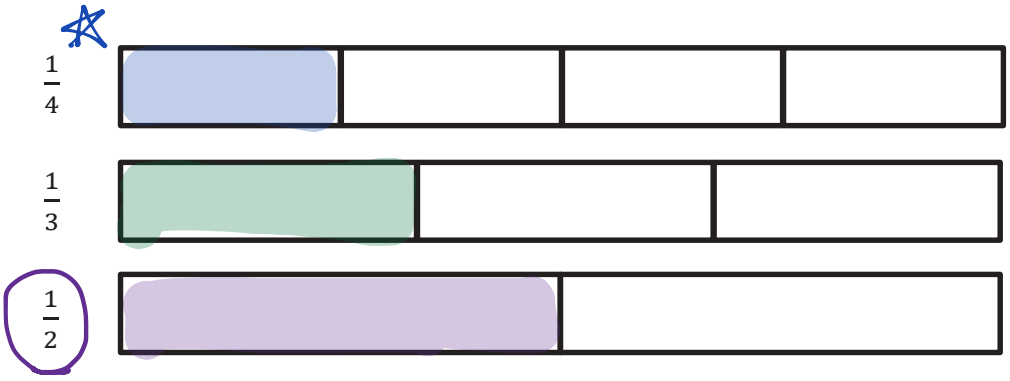


b. 10 fourths = $\frac{10}{4}$



Name _____ Date _____

1. Each fraction strip is 1 whole. All the fraction strips are equal in length. Color 1 fractional unit in each strip. Then, circle the largest fraction and draw a star to the right of the smallest fraction.



2. Use >, <, or = to compare.

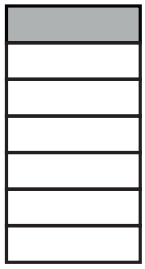
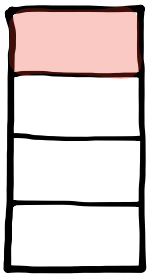
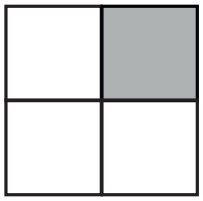
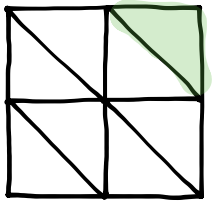
a. 1 eighth > 1 tenth

b. 1 whole = 5 fifths

c. $\frac{1}{7}$ < $\frac{1}{6}$

Name _____ Date _____

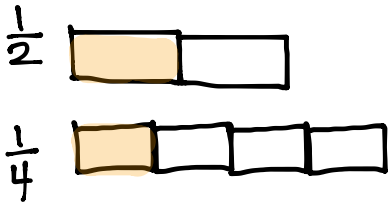
1. Fill in the blank with a fraction to make the statement true. Draw a matching model.

			
$\frac{1}{7}$ is less than $\frac{1}{4}$		$\frac{1}{4}$ is greater than $\frac{1}{8}$	

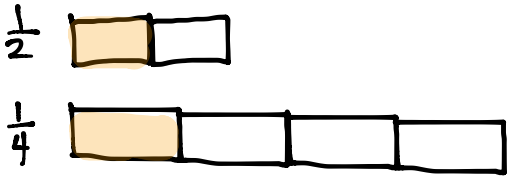
2. Tatiana ate $\frac{1}{2}$ of a small carrot. Louis ate $\frac{1}{4}$ of a large carrot. Who ate more? Use words and pictures to explain your answer.

We can't determine who ate more because their "wholes" are not the same size.

$\frac{1}{2}$ of a small carrot could be smaller or larger than a large carrot.



OR



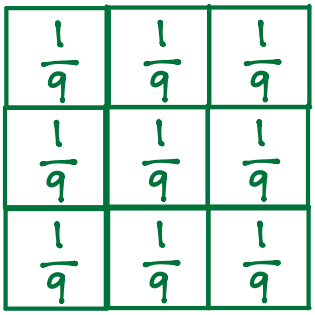
Name _____ Date _____

Each shape represents the unit fraction. Draw a picture representing a possible whole.

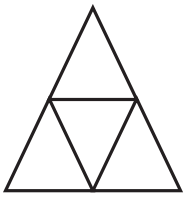
1. $\frac{1}{7}$

SHAPES WILL VARY

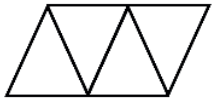
2. $\frac{1}{9}$



3. Aileen and Jack used the same triangle representing the unit fraction $\frac{1}{4}$ to create 1 whole. Who did it correctly? Explain your answer.



Aileen's Drawing

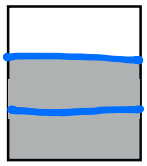


Jack's Drawing

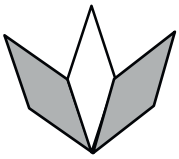
To create 1 whole in this case requires 4 triangles. Since they both used 4 triangles, they are both correct.

Name _____ Date _____

Ms. Silverstein asked the class to draw a model showing $\frac{2}{3}$ shaded. Karol and Deb drew the models below. Whose model is correct? Explain how you know.



Karol's Diagram

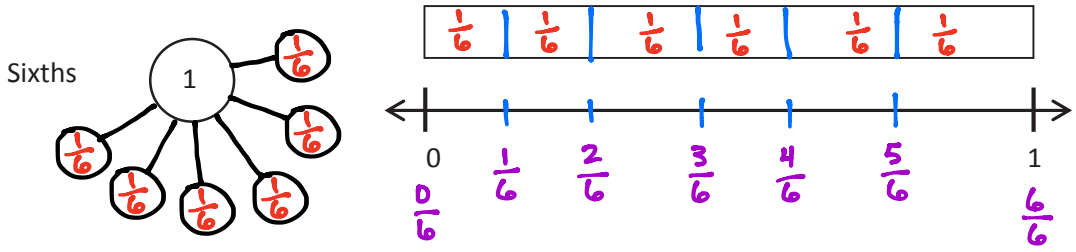


Deb's Diagram

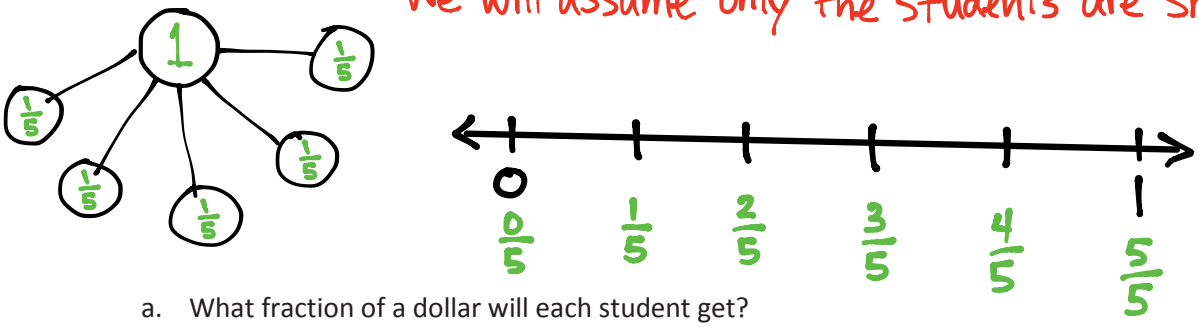
Both Karol and Deb are correct, since they both drew shapes that can be cut into 3 equal parts with 2 of those parts being shaded. They used different wholes, but they both modeled $\frac{2}{3}$.

Name _____ Date _____

1. Draw a number bond for the fractional unit. Partition the fraction strip, and draw and label the fractions on the number line. Be sure to label the fractions at 0 and 1.



2. Ms. Metcalf wants to share $1 equally among 5 students. Draw a number bond and a number line to help explain your answer. We will assume only the students are sharing the $1.



a. What fraction of a dollar will each student get?

Each student will get $\frac{1}{5}$ of a dollar.

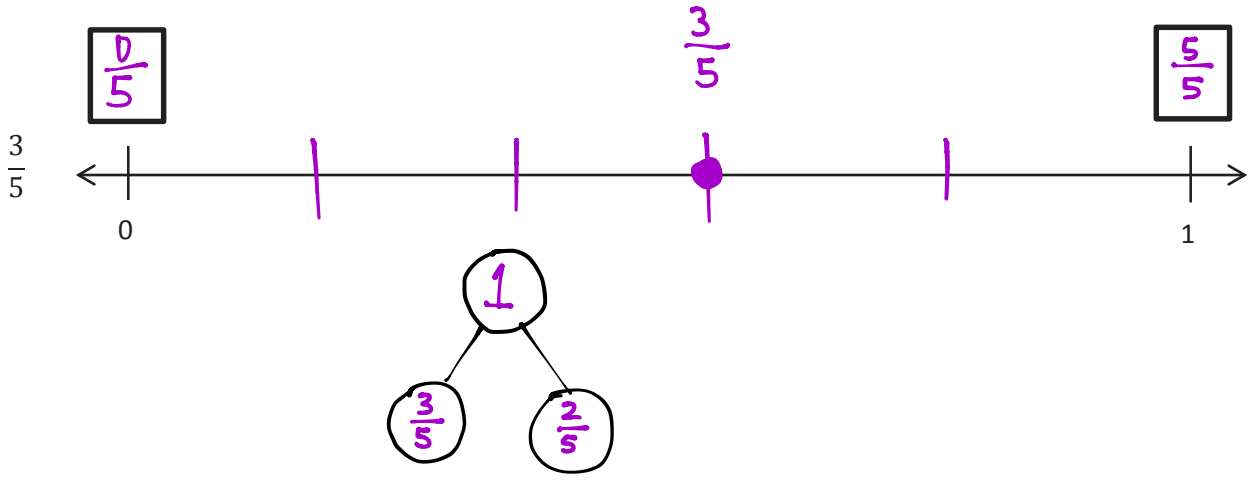
b. How much money will each student get?

Each student will get 20¢.

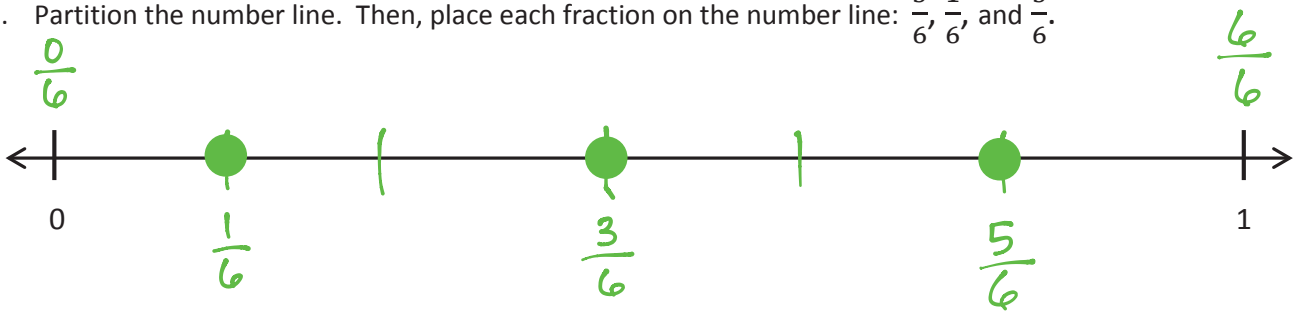
$$5\overline{)100}\quad 20,\ -10,\ 00$$

Name _____ Date _____

1. Estimate to label the given fraction on the number line. Be sure to label the fractions at 0 and 1. Write the fractions above the number line. Draw a number bond to match your number line.

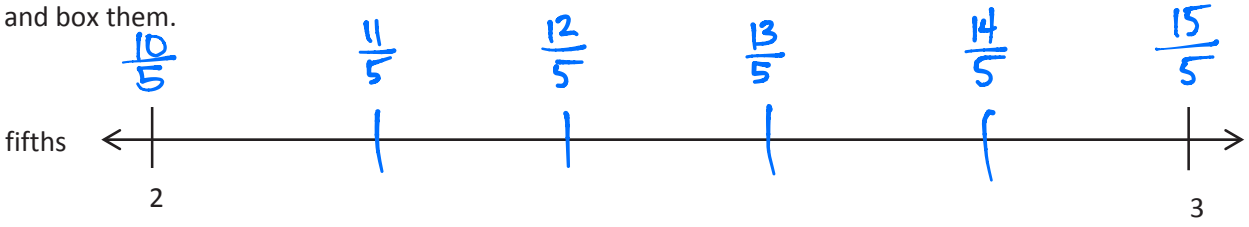


2. Partition the number line. Then, place each fraction on the number line: $\frac{3}{6}$, $\frac{1}{6}$, and $\frac{5}{6}$.

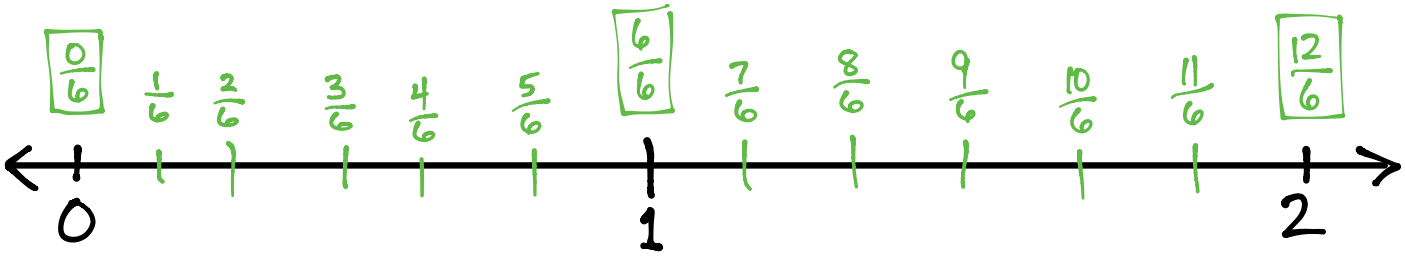


Name _____ Date _____

1. Estimate to equally partition and label the fractions on the number line. Label the wholes as fractions, and box them.

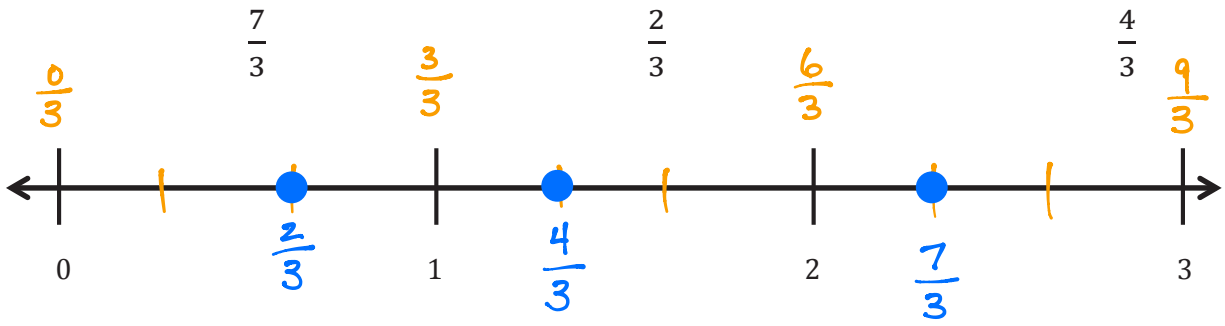


2. Draw a number line with endpoints 0 and 2. Label the wholes. Estimate to partition each whole into sixths, and label them. Box the fractions that are located at the same points as whole numbers.

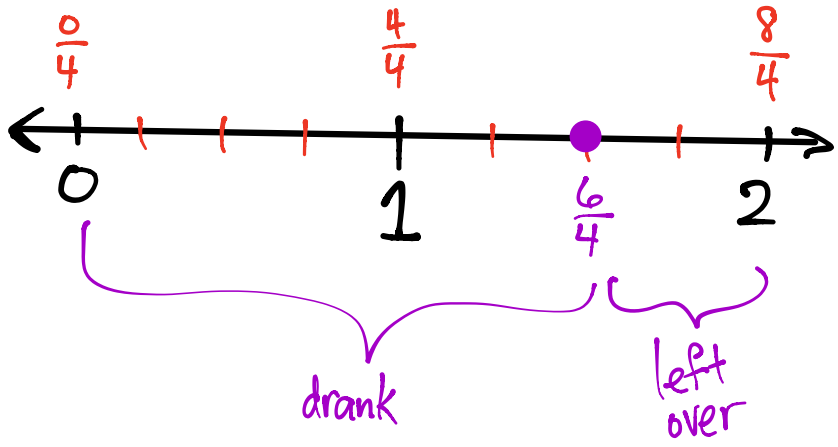


Name _____ Date _____

1. Locate and label the following fractions on the number line.



2. Katie bought 2 one-gallon bottles of juice for a party. Her guests drank $\frac{6}{4}$ gallons of juice. What fraction of a gallon of juice is left over? Draw a number line to show, and explain your answer.

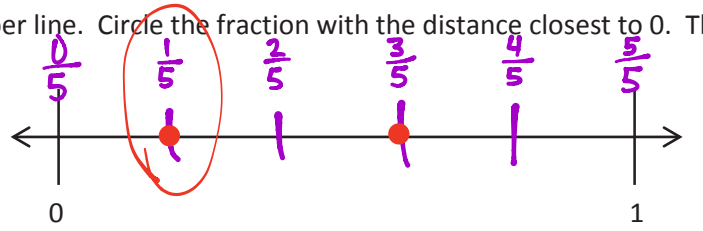


There is $\frac{2}{4}$ of a gallon of juice left over.

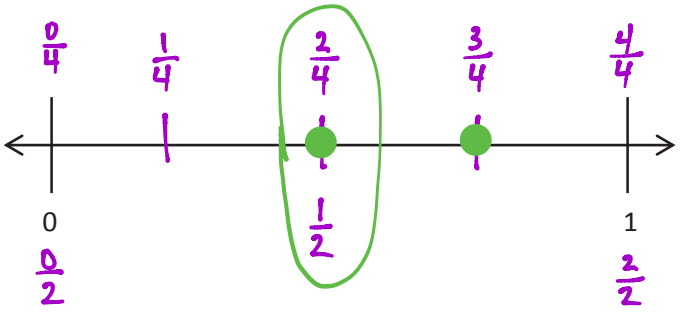
Name _____ Date _____

Place the two fractions on the number line. Circle the fraction with the distance closest to 0. Then, compare using >, <, or =.

1. $\frac{3}{5}$ > $\frac{1}{5}$

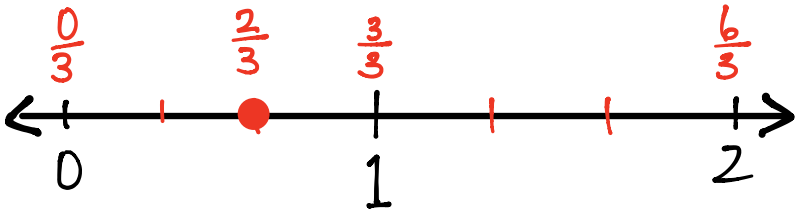


2. $\frac{1}{2}$ < $\frac{3}{4}$

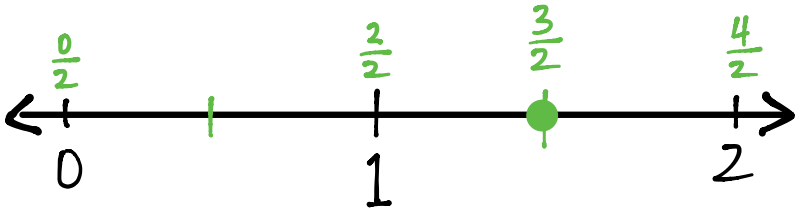


3. Mr. Brady draws a fraction on the board. Ken says it's $\frac{2}{3}$, and Dan said it's $\frac{3}{2}$. Do both of these fractions mean the same thing? If not, which fraction is larger? Draw a number line to model $\frac{2}{3}$ and $\frac{3}{2}$. Use words, pictures, and numbers to explain your comparison.

Ken



Dan



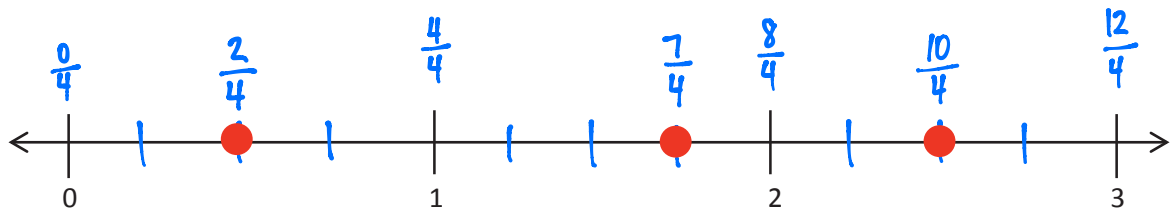
These number lines show that $\frac{2}{3}$ is less than 1, while $\frac{3}{2}$ is more than 1.

$\frac{3}{2}$ is larger than $\frac{2}{3}$.

Name _____ Date _____

1. Divide the number line into the given fractional unit. Then, place the fractions. Write each whole as a fraction.

fourths $\frac{2}{4}$ $\frac{10}{4}$ $\frac{7}{4}$



2. Use the number line above to compare the following fractions using >, <, or =.

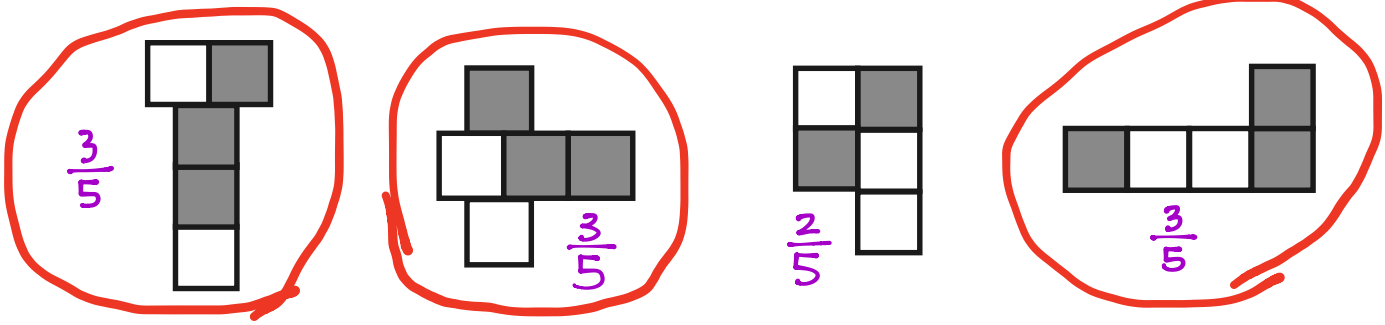
$\frac{3}{4}$ < $\frac{5}{4}$ $\frac{7}{4}$ > $\frac{4}{4}$ 3 > $\frac{6}{4}$

3. Use the number line from Problem 1. Which is larger: 2 wholes or $\frac{9}{4}$? Use words, pictures, and numbers to explain your answer.

The number line shows that 2 wholes is equal to $\frac{8}{4}$, so this means 2 is less than $\frac{9}{4}$.

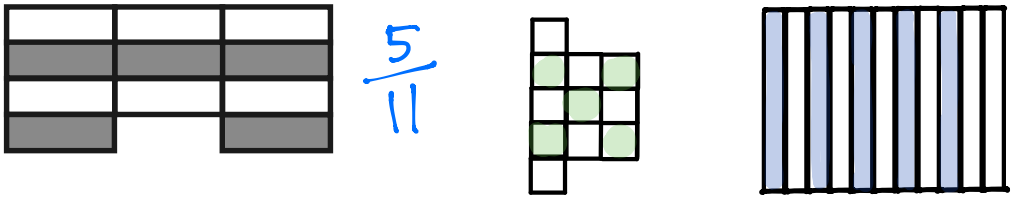
Name _____ Date _____

1. Label what fraction of the figure is shaded. Then, circle the fractions that are equal.

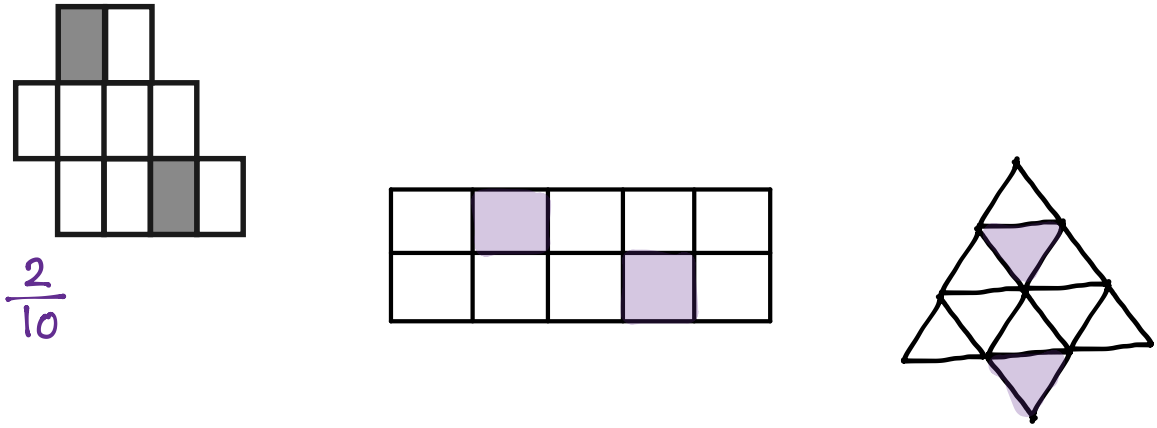


2. Label the shaded fraction. Draw 2 different representations of the same fractional amount.

a.

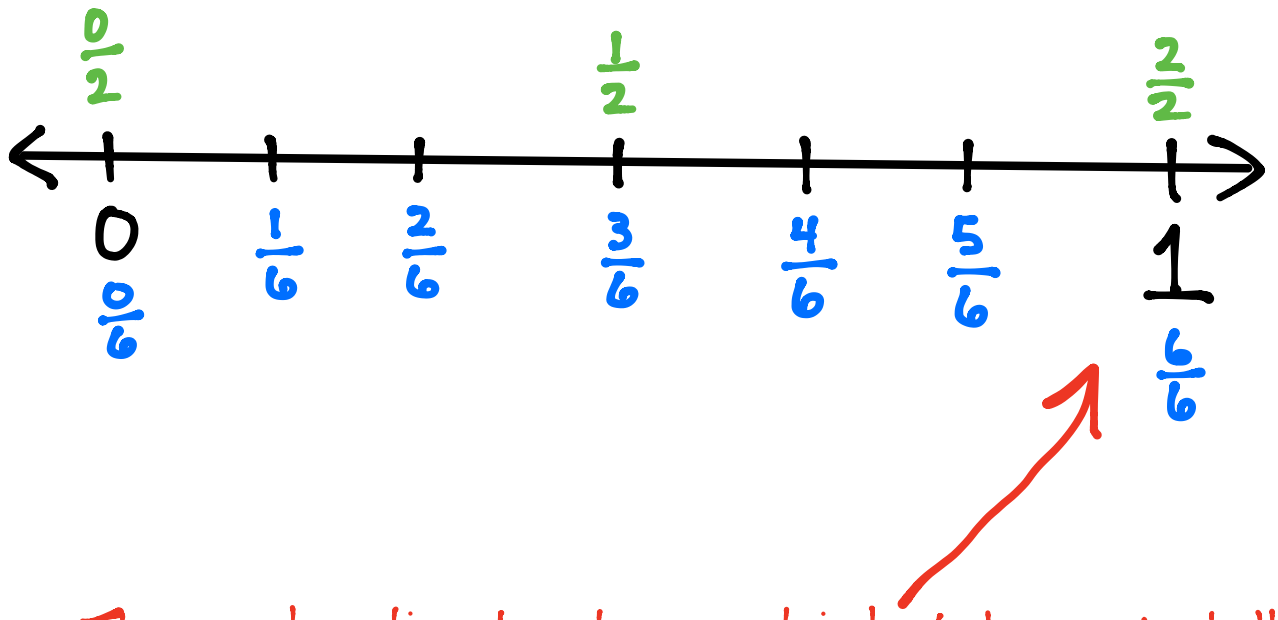


b.



Name _____ Date _____

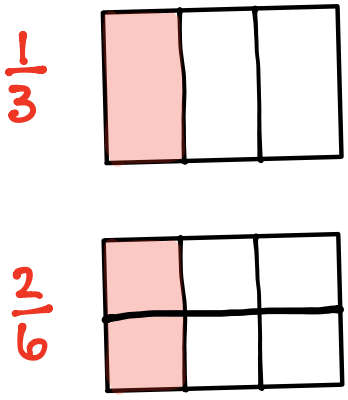
Claire went home after school and told her mother that 1 whole is the same as $\frac{2}{2}$ and $\frac{6}{6}$. Her mother asked why, but Claire couldn't explain. Use a number line and words to help Claire show and explain why $1 = \frac{2}{2} = \frac{6}{6}$.



The number line has been cut into halves and sixths. It shows that $\frac{2}{2}$ and $\frac{6}{6}$ are both located at the same place as 1. This means $1 = \frac{2}{2} = \frac{6}{6}$.

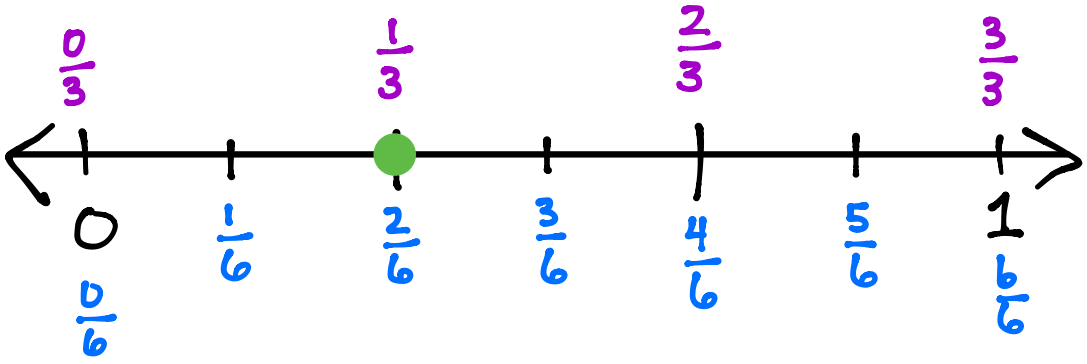
Name _____ Date _____

1. Draw and label two models that show equivalent fractions.



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

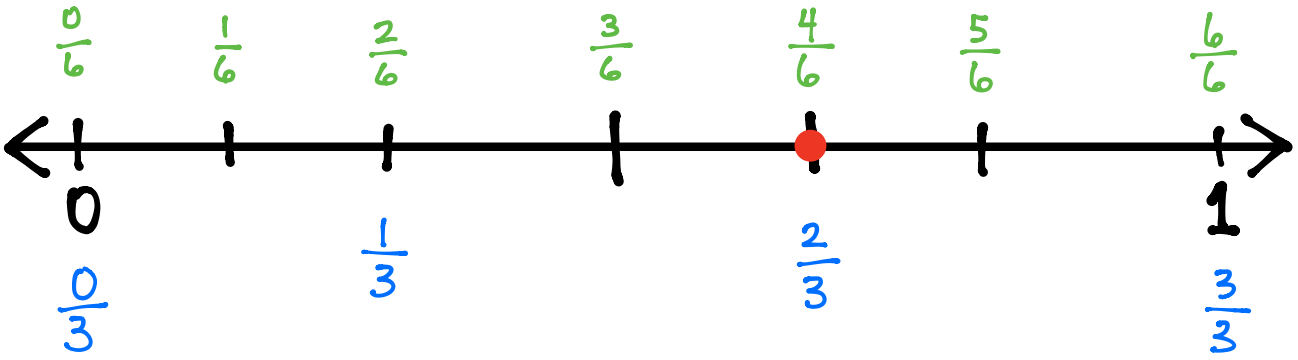
2. Draw a number line that proves your thinking about Problem 1.



$\frac{1}{3}$ and $\frac{2}{6}$ are located at the same place on the number line. This shows $\frac{1}{3} = \frac{2}{6}$.

Name _____ Date _____

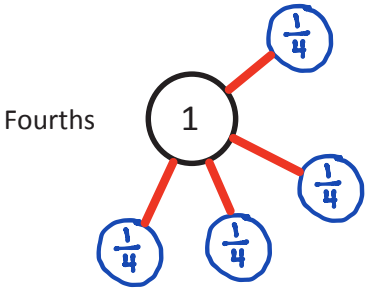
Henry and Maddie were in a pie-eating contest. The pies were cut either into thirds or sixths. Henry picked up a pie cut into sixths and ate $\frac{4}{6}$ of it in 1 minute. Maddie picked up a pie cut into thirds. What fraction of her pie does Maddie have to eat in 1 minute to tie with Henry? Draw a number line, and use words to explain your answer.

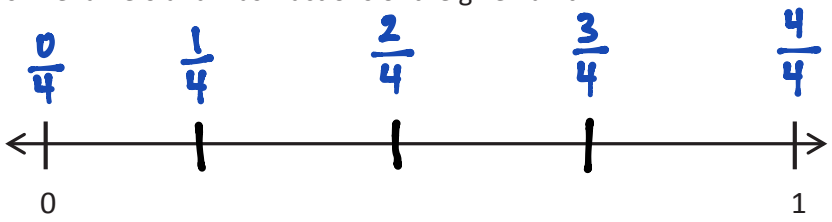


The number line shows that $\frac{2}{3} = \frac{4}{6}$.

Name _____ Date _____

1. Complete the number bond as indicated by the fractional unit. Partition the number line into the given fractional unit, and label the fractions. Rename 0 and 1 as fractions of the given unit.



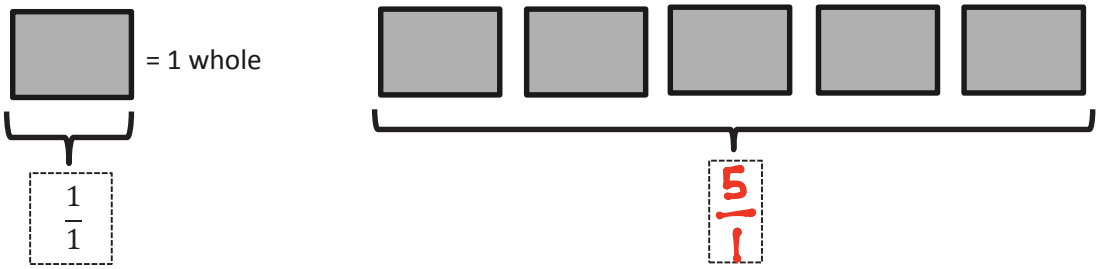


2. How many copies of $\frac{1}{4}$ does it take to make 1 whole? What's the fraction for 1 whole in this case? Use the number line or the number bond in Problem 1 to help you explain.

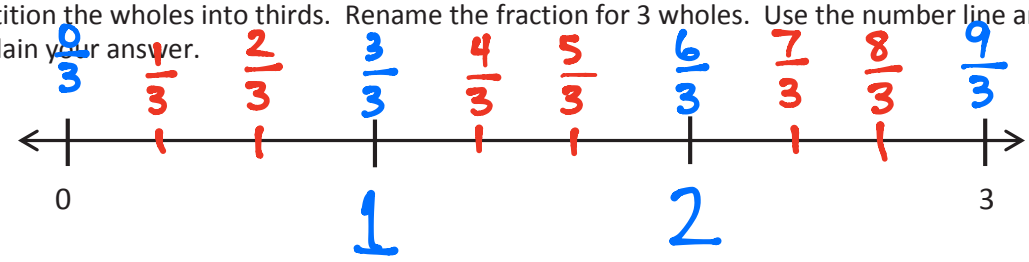
It takes 4 fourths to make 1 whole. The fraction for 1 whole is $\frac{4}{4}$.

Name _____ Date _____

1. Label the model as a fraction inside the box.



2. Partition the wholes into thirds. Rename the fraction for 3 wholes. Use the number line and words to explain your answer.



$\frac{0}{3} = 0$

$\frac{3}{3} = 1$

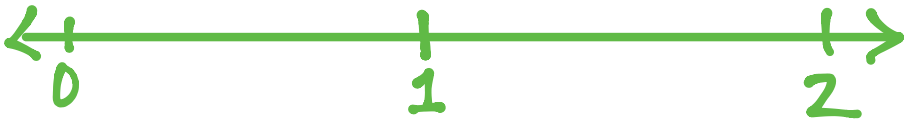
$\frac{6}{3} = 2$

$\frac{9}{3} = 3$

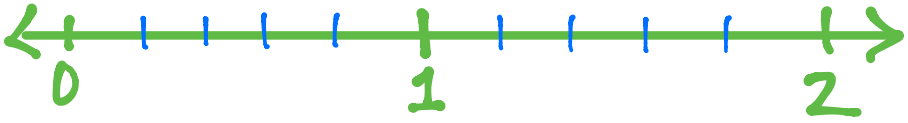
Name _____ Date _____

Irene has 2 yards of fabric.

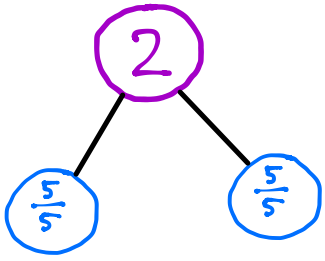
a. Draw a number line to represent the total length of Irene's fabric.



b. Irene cuts her fabric into pieces of $\frac{1}{5}$ yard in length. Partition the number line to show her cuts.



c. How many $\frac{1}{5}$-yard pieces does she cut altogether? Use number bonds with copies of wholes to help you explain.



She cuts ten $\frac{1}{5}$-yard pieces.

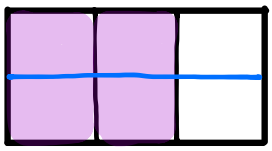
Name _____ Date _____

1. Solve.

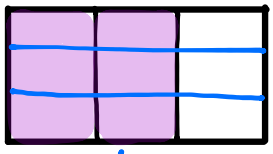
2 thirds is equal to 8 twelfths.

$$\frac{2}{3} = \frac{8}{12}$$

2. Draw and label two models that show fractions equivalent to those in Problem 1.



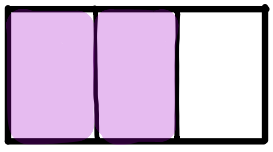
$\frac{4}{6}$



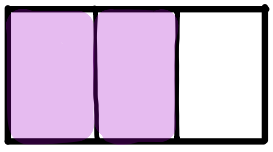
$\frac{6}{9}$

3. Use words to explain why the two fractions in Problem 1 are equal.

$\frac{2}{3}$



$\frac{8}{12}$



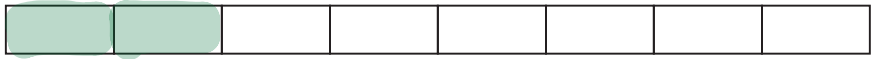
$\frac{2}{3}$ is equal to $\frac{8}{12}$ because each third has been cut into 4 pieces, so 3 thirds multiplied by 4 gives 12 twelfths. the two shaded pieces multiplied by 4 becomes 8 shaded pieces.

$$\frac{2 \times 4}{3 \times 4} = \frac{8}{12}$$

Name _____ Date _____

1. Shade the models to compare the fractions.

2 thirds 

2 eighths 

Which is larger, 2 thirds or 2 eighths? Why? Use words to explain.

2 thirds is larger than 2 eighths because 2 big pieces is more than 2 small pieces.

2. Draw a model for each fraction. Circle the smaller fraction.

3 sevenths 

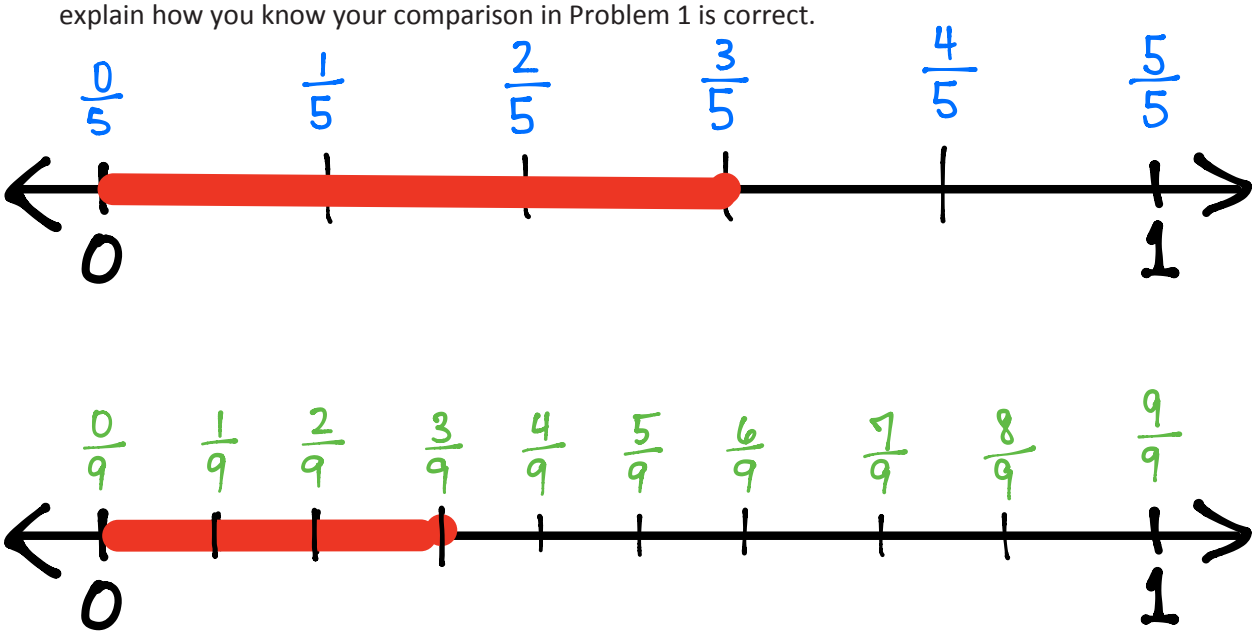
3 fourths 

Name _____ Date _____

1. Complete the number sentence by writing >, <, or =.

$\frac{3}{5}$ > $\frac{3}{9}$

2. Draw 2 number lines with endpoints 0 and 1 to show each fraction in Problem 1. Use the number lines to explain how you know your comparison in Problem 1 is correct.



These two number lines show that $\frac{3}{5}$ is further from 0 than $\frac{3}{9}$ is from 0. So, $\frac{3}{5} > \frac{3}{9}$.