

Name _____



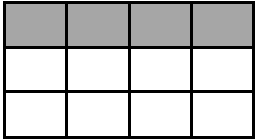

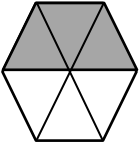
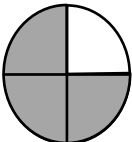


Practice Sheet

4.NF

Understanding
fractions as part
of a region, set,
and number line
Fundamental skill

Put It All Together

Write a fraction for each part of the region, set, or number line that is shaded.

 <p>1. _____</p>	 <p>2. _____</p>	 <p>3. _____</p>	 <p>4. _____</p>
 <p>5. _____</p>	 <p>6. _____</p>	 <p>7. _____</p>	 <p>8. _____</p>

Multiple Choice

____ 9. There are 12 boys and 10 girls in Mrs. Raymond's class. What fraction of Mrs. Raymond's class is girls?

A. $\frac{10}{12}$

B. $\frac{12}{10}$

C. $\frac{12}{22}$

D. $\frac{10}{22}$

____ 10. A pizza was divided into 8 equal slices. Paxton ate 1 slice, Grayson ate 3 slices, and Jace ate 4 slices. What fraction of the pizza did Grayson eat?

A. $\frac{1}{8}$

B. $\frac{3}{8}$

C. $\frac{4}{8}$

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

Name _____

Practice Sheet

4.NF.1

Use models to show equivalent fractions

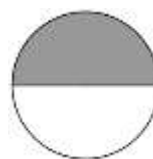
Use Models to Find Equivalent Fractions

A fraction can have many different names. Fractions that name the same amount are called equivalent fractions.

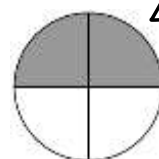
Example: Let's find some fractions that are equivalent to $\frac{1}{2}$.

Step 1: Draw a model to represent $\frac{1}{2}$.

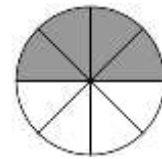
Step 2: Divide each half in half.



Step 1



Step 2



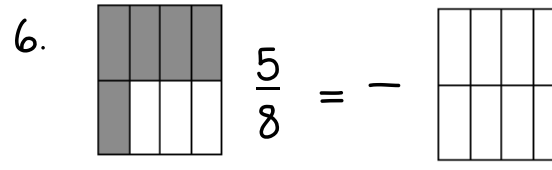
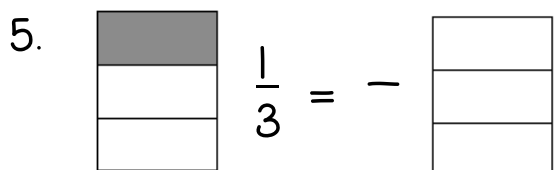
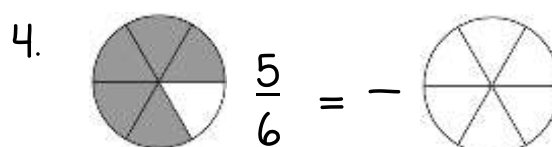
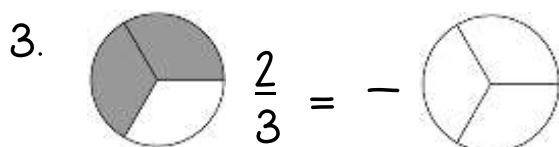
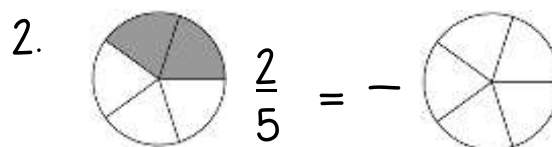
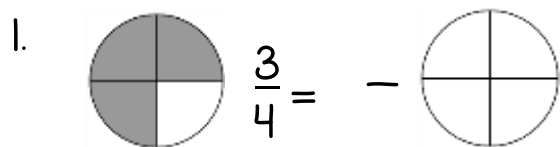
Step 3

So, $\frac{1}{2}$ is equivalent to $\frac{2}{4}$. Both fractions name the same amount.

Step 3: Divide each part from Step 2 in half again.

So, $\frac{1}{2}$ is also equivalent to $\frac{4}{8}$, and $\frac{2}{4}$ is equivalent to $\frac{4}{8}$.

Use the models below to write an equivalent fraction. You will need to divide the parts of the second model to make an equivalent fraction.



Name _____

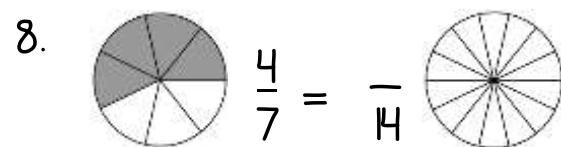
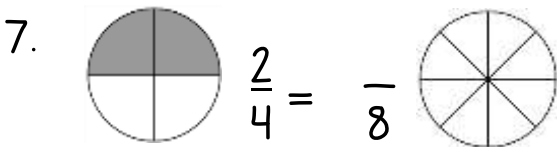
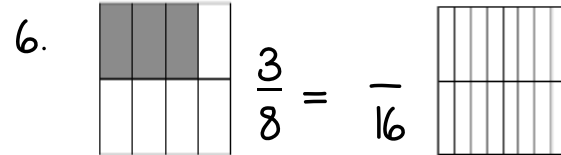
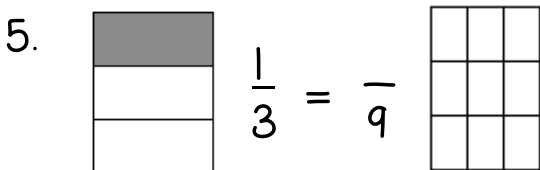
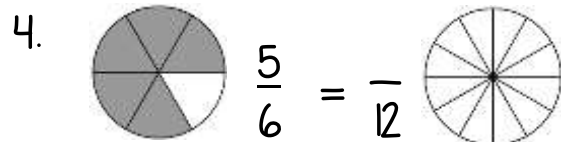
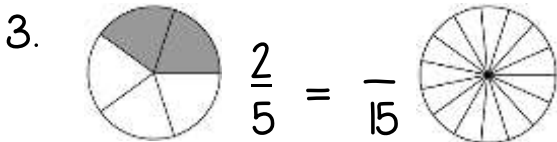
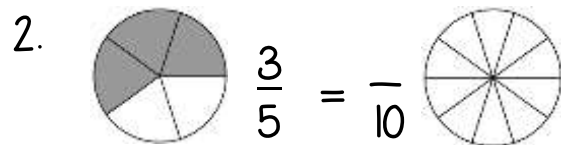
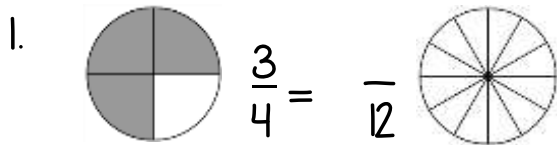
Practice Sheet

4.NF.1

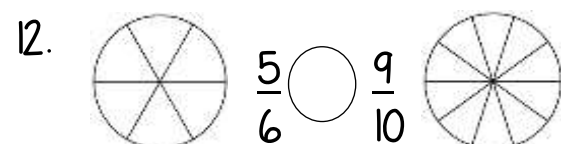
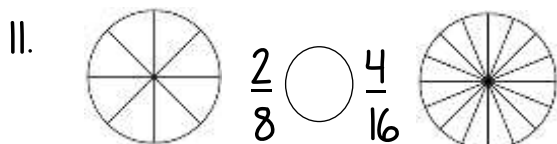
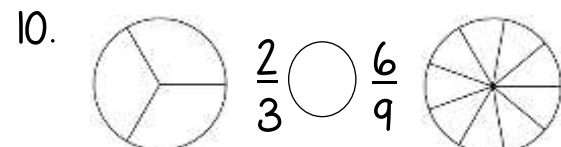
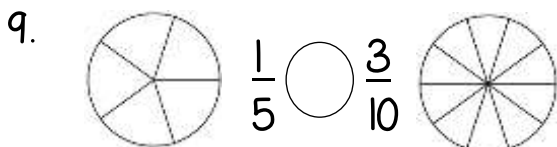
Use models to show equivalent fractions

Use Models to Find Equivalent Fractions More Practice

Use the models below to write an equivalent fraction.



Are the fractions below equivalent? Prove it with a picture. Write = or \neq .



Name _____

Practice Sheet

4.NF.1

Use multiplication to generate equivalent fractions

Generate Equivalent Fractions

To generate equivalent fractions without drawing a model, multiply the numerator and denominator of a fraction by the same number.

Examples: $\frac{2}{3} \frac{\boxed{\times 2}}{\boxed{\times 2}} = \frac{4}{6}$ $\frac{2}{3} \frac{\boxed{\times 3}}{\boxed{\times 3}} = \frac{6}{9}$ $\frac{3}{10} \frac{\boxed{\times 3}}{\boxed{\times 3}} = \frac{9}{30}$ $\frac{3}{10} \frac{\boxed{\times 5}}{\boxed{\times 5}} = \frac{15}{50}$

Write two equivalent fractions for each fraction below.

1. $\frac{1}{2} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

2. $\frac{3}{5} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

3. $\frac{5}{6} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

$\frac{1}{2} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

$\frac{3}{5} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

$\frac{5}{6} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

4. $\frac{7}{8} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

5. $\frac{1}{3} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

6. $\frac{3}{4} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

$\frac{7}{8} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

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

$\frac{3}{4} \frac{\boxed{}}{\boxed{}} = \frac{}{}$

Are the fractions below equivalent? Write = or \neq .

(HINT: Have the numerator and denominator been multiplied by the same number?)

7. $\frac{2}{3} \bigcirc \frac{8}{12}$

8. $\frac{3}{6} \bigcirc \frac{6}{9}$

9. $\frac{5}{7} \bigcirc \frac{15}{21}$

Name _____

Practice Sheet

4.NF.1

Identify a missing value to create equivalent fractions

Equivalent Fractions with Missing Values

What number will make these 2 fractions equal?

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

Step 1: Think: $3 \times \underline{?} = 6$. Answer: 2Step 2: If $3 \times 2 = 6$, then multiply $2 \times 2 = 4$.

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

Remember: To make an equivalent fraction, what you do to the numerator, you must do to the denominator.

Fill in the missing value to make both fractions equivalent.

1. $\frac{1}{2} = \frac{\square}{8}$

2. $\frac{3}{4} = \frac{9}{\square}$

3. $\frac{2}{5} = \frac{\square}{20}$

4. $\frac{5}{6} = \frac{10}{\square}$

5. $\frac{1}{3} = \frac{\square}{15}$

6. $\frac{7}{10} = \frac{21}{\square}$

7. $\frac{3}{8} = \frac{\square}{32}$

8. $\frac{4}{5} = \frac{40}{\square}$

9. Jeremy's pizza was cut into 6 equal slices, and he ate 4 pieces. Zachary's pizza was cut into 12 equal slices. How many pieces does Zachary need to eat so that he and Jeremy have eaten an equal amount?

*Prove it with a picture.

10. Katie has $\frac{15}{20}$ of a dollar in her pocket. Lisa has the same amount of money in her pocket. What fraction of a dollar does Lisa have in her pocket?

A. $\frac{5}{10}$

B. $\frac{3}{4}$

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

D. $\frac{2}{10}$

Name _____

Practice Sheet

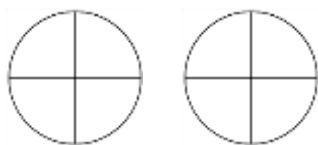
4.NF.1

Use models and multiplication to generate equivalent fractions

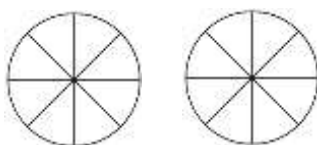
Put It All Together

Fill in the first model to represent the fraction given. Then, write an equivalent fraction for each fraction and prove it with a model.

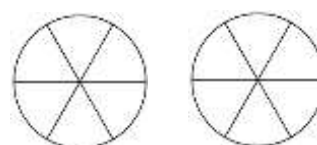
1. $\frac{1}{4} \frac{\square}{\square} = \text{---}$



2. $\frac{3}{8} \frac{\square}{\square} = \text{---}$



3. $\frac{2}{6} \frac{\square}{\square} = \text{---}$



Are the fractions below equivalent? Write = or \neq .

4. $\frac{2}{4} \bigcirc \frac{8}{12}$

5. $\frac{5}{6} \bigcirc \frac{15}{18}$

6. $\frac{3}{10} \bigcirc \frac{12}{40}$

7. $\frac{1}{8} \bigcirc \frac{3}{16}$

Fill in the missing value to make both fractions equivalent.

8. $\frac{1}{7} = \frac{\square}{28}$

9. $\frac{4}{9} = \frac{16}{\square}$

10. $\frac{3}{4} = \frac{\square}{12}$

11. $\frac{2}{5} = \frac{10}{\square}$

12. Stephanie baked a cake and cut it into 15 equal pieces. She put icing on 9 pieces. Tammy baked the same size cake and cut her cake into 5 equal pieces. How many pieces of cake should Tammy put icing on so that it is equivalent to the amount of icing on Stephanie's cake?

13. Bryan and Caden have both completed the same amount of their homework so far. If Bryan has completed $\frac{8}{12}$ of his homework, how much has Caden completed?

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

B. $\frac{3}{4}$

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

D. $\frac{2}{4}$

Name _____

Practice Sheet

4.NF.1

Identify fractions
in simplest form

Fractions in Simplest Form

A fraction is in its simplest form when the only common factor of the numerator and denominator is 1.

Example: $\frac{3}{4}$ Factors: 1, 3
Factors: 1, 4
The only common factor of 3 and 4 is 1, so this fraction is in simplest form.

Example: $\frac{4}{8}$ Factors: 1, 2, 4
Factors: 1, 2, 4, 8
2 and 4 are common factors of both numbers, so this fraction is NOT in simplest form.

$\frac{4}{8} \div 4 = \frac{1}{2}$ Since 4 is the greatest common factor (GCF) of both numbers, divide both numbers by 4.

For each fraction below, write the factors of the numerator and denominator. If the only common factor is 1, circle "yes" it is in simplest form. If there are other common factors besides 1, circle "no" and divide both the numerator and denominator by the greatest common factor (GCF).

1. $\frac{2}{6}$ Factors: _____ Is this fraction in simplest form? Yes/No
Factors: _____ Reduce if needed: $\frac{2}{6} \div \square = \frac{\quad}{\quad}$

2. $\frac{6}{9}$ Factors: _____ Is this fraction in simplest form? Yes/No
Factors: _____ Reduce if needed: $\frac{6}{9} \div \square = \frac{\quad}{\quad}$

3. $\frac{5}{7}$ Factors: _____ Is this fraction in simplest form? Yes/No
Factors: _____ Reduce if needed: $\frac{5}{7} \div \square = \frac{\quad}{\quad}$

Name _____

Practice Sheet

4.NF.1

Identify fractions
in simplest formFractions in Simplest Form: More Practice

For each fraction below, write the factors of the numerator and denominator. If the only common factor is 1, circle "yes" it is in simplest form. If there are other common factors besides 1, circle "no" and divide both the numerator and denominator by the greatest common factor (GCF).

1. $\frac{4}{12}$ Factors: _____ Is this fraction in simplest form? Yes/No

Factors: _____ Reduce if needed: $\frac{4}{12} \div \frac{\square}{\square} = \frac{\square}{\square}$

2. $\frac{3}{10}$ Factors: _____ Is this fraction in simplest form? Yes/No

Factors: _____ Reduce if needed: $\frac{3}{10} \div \frac{\square}{\square} = \frac{\square}{\square}$

3. $\frac{9}{15}$ Factors: _____ Is this fraction in simplest form? Yes/No

Factors: _____ Reduce if needed: $\frac{9}{15} \div \frac{\square}{\square} = \frac{\square}{\square}$

Write each fraction below in simplest form. If the fraction is already in simplest form, write "simplest form."

4. $\frac{5}{10}$

5. $\frac{2}{12}$

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

7. $\frac{8}{12}$

8. $\frac{11}{15}$

9. $\frac{4}{9}$

10. $\frac{4}{16}$

11. $\frac{10}{12}$

12. $\frac{6}{8}$

13. $\frac{5}{25}$

Name _____

Practice Sheet

4.NF.1

Identify equivalent fractions

Identify Equivalent Fractions

1. Which fraction is equivalent to $\frac{2}{5}$?

- A. $\frac{4}{6}$ B. $\frac{4}{10}$ C. $\frac{5}{10}$ D. $\frac{7}{8}$

2. Which fraction is equivalent to $\frac{9}{12}$?

- A. $\frac{2}{3}$ B. $\frac{1}{4}$ C. $\frac{5}{10}$ D. $\frac{3}{4}$


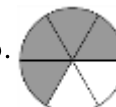


3. Which fraction is equivalent to $\frac{4}{8}$?

- A. $\frac{2}{3}$ B. $\frac{5}{6}$ C. $\frac{8}{16}$ D. $\frac{12}{16}$

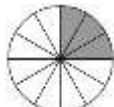
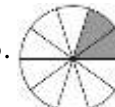

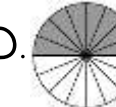
4. Which fraction is equivalent to $\frac{8}{10}$?

- A. $\frac{2}{5}$ B. $\frac{3}{6}$ C. $\frac{4}{5}$ D. $\frac{14}{16}$

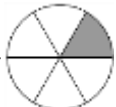

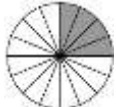

5. Which fraction is equivalent to $\frac{2}{3}$?

- A.  B.  C.  D. 

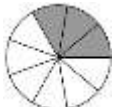
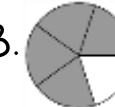

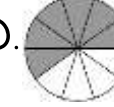
6. Which fraction is equivalent to $\frac{1}{4}$?

- A.  B.  C.  D. 

7. Which pair are equivalent?

- A.  $\frac{2}{12}$ B.  $\frac{2}{10}$
 C.  $\frac{1}{2}$ D.  $\frac{2}{8}$

8. Which pair are equivalent?

- A.  $\frac{10}{18}$ B.  $\frac{8}{10}$
 C.  $\frac{2}{4}$ D.  $\frac{6}{8}$

9. Maria has jogged 6 laps. She wants to jog a total of 15 laps. The shaded region of which figure models the number of laps Maria has jogged out of the total she wants to jog?

- A.  B.  C.  D. 

Name _____

Practice Sheet

4.NF.2

Compare fractions
using benchmark
fractions

Benchmark Fractions

Benchmark fractions are the frequently used or "known" fractions.

For instance $\frac{1}{2}$ is a benchmark fraction.

You can use benchmark fractions to help understand or determine the size or value of other fractions.

Example:

$\frac{1}{6}$ is $<$ or $>$ $\frac{7}{10}$

Think	Say	Do
$\frac{1}{6}$ is less than $\frac{1}{2}$ $\frac{7}{10}$ is greater than $\frac{1}{2}$	<p>1 is less than half of 6.</p> $\frac{1}{6} < \frac{1}{2}$ $\frac{7}{10} > \frac{1}{2}$ <p>7 is more than half of 10.</p>	$\frac{1}{6} < \frac{7}{10}$

Now you try! Compare the fractions using the benchmark fraction $\frac{1}{2}$. Write $<$ or $>$ in the \bigcirc .

1	$\frac{2}{3}$ \bigcirc $\frac{4}{10}$	Think: $\frac{2}{3} >$ than $\frac{1}{2}$ $\frac{4}{10} <$ than $\frac{1}{2}$
2	$\frac{3}{5}$ \bigcirc $\frac{3}{8}$	Think: $\frac{3}{5} >$ than $\frac{1}{2}$ $\frac{3}{8} <$ than $\frac{1}{2}$
3	$\frac{1}{4}$ \bigcirc $\frac{6}{12}$	Think: $\frac{1}{4} <$ than $\frac{1}{2}$ $\frac{6}{12}$ is exactly $\frac{1}{2}$
4	$\frac{1}{3}$ \bigcirc $\frac{7}{8}$	Think: $\frac{1}{3} <$ than $\frac{1}{2}$ $\frac{7}{8} >$ than $\frac{1}{2}$

Name _____

Practice Sheet

4.NF.2

Compare fractions
to benchmark
fractions

Comparing Fractions to Benchmark Fractions

Look at each fraction below and sort into the correct category.
The first one has been done for you.

~~$\frac{1}{4}$~~ , $\frac{3}{7}$, $\frac{2}{3}$, $\frac{7}{10}$, $\frac{5}{5}$, $\frac{3}{6}$, $\frac{8}{20}$, $\frac{2}{4}$, $\frac{8}{8}$,
 $\frac{7}{12}$, $\frac{6}{12}$, $\frac{7}{7}$, $\frac{1}{3}$, $\frac{7}{9}$, $\frac{2}{6}$, $\frac{5}{10}$, $\frac{2}{8}$, $\frac{6}{9}$, $\frac{8}{16}$
 $\frac{7}{14}$, $\frac{3}{5}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{9}{12}$, $\frac{4}{8}$, $\frac{6}{11}$, $\frac{7}{8}$, $\frac{3}{9}$

Less than $\frac{1}{2}$	Exactly $\frac{1}{2}$
$\frac{1}{4}$	
More than $\frac{1}{2}$	Exactly 1 whole

Name _____

Practice Sheet

4.NF.2

Compare fractions
using benchmark
fractions

Comparing Fractions Using Benchmark Fractions

Use benchmark fractions to help compare the following.

Write $<$, $>$, or $=$ in the \bigcirc .

1. $\frac{1}{2} \bigcirc \frac{7}{8}$

2. $\frac{6}{12} \bigcirc \frac{3}{12}$

3. $\frac{5}{8} \bigcirc \frac{1}{9}$

4. $\frac{4}{8} \bigcirc \frac{2}{3}$

5. $\frac{6}{11} \bigcirc \frac{8}{9}$

6. $\frac{1}{3} \bigcirc \frac{7}{10}$

7. $\frac{7}{9} \bigcirc \frac{4}{8}$

8. $\frac{1}{8} \bigcirc \frac{10}{12}$

9. $\frac{3}{4} \bigcirc \frac{2}{8}$

10. $\frac{2}{3} \bigcirc \frac{7}{14}$

11. $\frac{9}{10} \bigcirc \frac{2}{6}$

12. $\frac{1}{2} \bigcirc \frac{8}{12}$

13. Lily has read $\frac{3}{4}$ of her book. Sophie has read $\frac{2}{6}$ of her book. Which girl has read more of her book?

Explain how you know.

14. Andy has spent $\frac{7}{10}$ of the last hour playing video games. Jordan has spent $\frac{6}{12}$ of the last hour playing video games. How do you know Andy spent more time playing video games?

A. Because 7 is more than 6.

B. Because $\frac{7}{10}$ is more than $\frac{1}{2}$ and $\frac{6}{12}$ is less than $\frac{1}{2}$.

C. Because $\frac{7}{10}$ is more than $\frac{1}{2}$ and $\frac{6}{12}$ is exactly $\frac{1}{2}$.

Name _____

Practice Sheet

4.NF.2

Compare fractions using models

Using Models to Compare Fractions

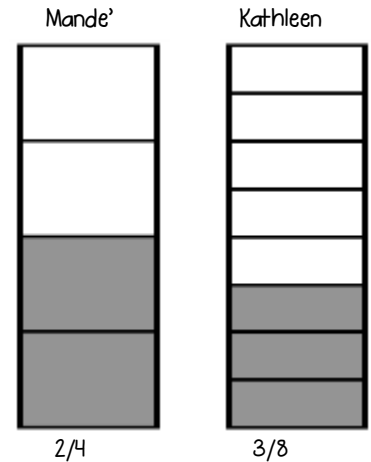
Mande' and Kathleen both have the same size cups. Mande' filled her cup $\frac{2}{4}$ full with water. Kathleen filled her cup $\frac{3}{8}$ full with water. Whose cup has more water? Draw a picture to solve.

Step 1 ~
Draw two rectangles that are the same size.

Step 2 ~
Divide one cup into 4 equal parts.
Divide one cup into 8 equal parts.

Part 3 ~
Shade in 2 of the 4 piece cup.
Shade in 3 of the 8 piece cup.

Part 4 ~
Compare the parts.



$$\frac{2}{4} > \frac{3}{8}$$

Draw fraction pictures to compare. Write $<$, $>$, or $=$ in the \bigcirc .

<p>1. $\frac{2}{3} \bigcirc \frac{4}{6}$</p> <p>$\frac{2}{3}$ </p> <p>$\frac{4}{6}$ </p>	<p>2. $\frac{1}{2} \bigcirc \frac{3}{4}$</p> <p></p> <p></p>	<p>3. $\frac{6}{12} \bigcirc \frac{5}{6}$</p> <p></p> <p></p>
<p>4. $\frac{3}{8} \bigcirc \frac{1}{4}$</p> <p></p> <p></p>	<p>5. $\frac{1}{6} \bigcirc \frac{4}{12}$</p> <p></p> <p></p>	<p>6. $\frac{4}{10} \bigcirc \frac{2}{5}$</p> <p></p> <p></p>
<p>7. $\frac{1}{3} \bigcirc \frac{2}{4}$</p> <p></p> <p></p>	<p>8. $\frac{3}{4} \bigcirc \frac{9}{12}$</p> <p></p> <p></p>	<p>9. $\frac{2}{3} \bigcirc \frac{4}{9}$</p> <p></p> <p></p>

Name _____

Practice Sheet

4.NF.2

Compare fractions
by finding common
denominators

Using Common Denominators to Compare Fractions

List the first few multiples of both denominators.

Find the least common multiple (LCM). Multiply so that both fractions have the LCM as the denominator.

$$\frac{4}{5} \bigcirc \frac{2}{3}$$

<u>Multiples:</u>	
3: 3, 6, 9, 12, 15	
5: 5, 10, 15	
$\frac{4}{5} \times 3 = \frac{12}{15}$	$\frac{2}{3} \times 5 = \frac{10}{15}$

$$\frac{4}{5} > \frac{2}{3}$$

Step 1: Find the Least Common Multiple (LCM)	Step 2: Multiply so that both fractions have the LCM as the denominator.	Step 3: Compare fractions <, > or =
$\frac{3}{4} \bigcirc \frac{5}{6}$ 4: 4, 8, 12 6: 6, 12	$\frac{3}{4} \boxed{\times 3} = \frac{9}{12}$ $\frac{5}{6} \boxed{\times 2} = \frac{10}{12}$ $\frac{3}{4} \boxed{\times 3} = \frac{9}{12}$ $\frac{5}{6} \boxed{\times 2} = \frac{10}{12}$	$\frac{3}{4} \bigcirc \frac{5}{6}$ $\frac{9}{12} < \frac{10}{12}$
$\frac{7}{8} \bigcirc \frac{3}{4}$ 8: 4:		$\frac{7}{8} \bigcirc \frac{3}{4}$
$\frac{5}{6} \bigcirc \frac{3}{5}$ 6: 5:		$\frac{5}{6} \bigcirc \frac{3}{5}$

Name _____

Practice Sheet

4.NF.2

Compare fractions
by finding common
denominators

Using Common Denominators to Compare Fractions

More Practice

Step 1: Find the Least Common Multiple (LCM)	Step 2: Multiply so that both fractions have the LCM as the denominator.	Step 3: Compare fractions <, > or =
$\frac{1}{4} \bigcirc \frac{2}{3}$ 4: 4, 8, 12 3: 3, 6, 9, 12	$\frac{1}{4} \overset{\boxed{\times 3}}{=} \frac{3}{12}$ $\frac{2}{3} \overset{\boxed{\times 4}}{=} \frac{8}{12}$	$\frac{1}{4} \overset{\boxed{<}}{<} \frac{2}{3}$ <small>$\frac{3}{12}$ $\frac{8}{12}$</small>
$\frac{2}{5} \bigcirc \frac{3}{4}$ 5: 4:		$\frac{2}{5} \bigcirc \frac{3}{4}$
$\frac{6}{8} \bigcirc \frac{1}{2}$ 8: 2:		$\frac{6}{8} \bigcirc \frac{1}{2}$

1. $\frac{5=5 \times 1}{10=5 \times 2} \bigcirc \frac{3 \times 2 = 6}{5 \times 2 = 10}$

2: 2, 4, 6, 8, 10
5: 5, 10

2. $\frac{6}{9} \bigcirc \frac{2}{3}$

3. $\frac{5}{8} \bigcirc \frac{1}{3}$

4. $\frac{4}{5} \bigcirc \frac{7}{10}$

5. $\frac{1}{4} \bigcirc \frac{3}{12}$

6. $\frac{5}{6} \bigcirc \frac{8}{10}$

7. $\frac{2}{4} \bigcirc \frac{4}{6}$

8. $\frac{5}{7} \bigcirc \frac{13}{14}$

Name _____

Practice Sheet

4.NF.2

Compare fractions
by cross
multiplyingCross Multiply to Compare Fractions

Cross multiply denominator x numerator. (Be sure to multiply bottom to top). Compare the products.

$4 \times 2 = 8$

$5 \times 3 = 15$

$$\frac{2}{5} \quad \frac{3}{4}$$

$$8 < 15$$

So, $\frac{2}{5} < \frac{3}{4}$

Cross multiply to compare the fractions below.

Write $<$, $>$, or $=$ in the \bigcirc .

1. $\frac{3}{4} \bigcirc \frac{5}{8}$

2. $\frac{2}{12} \bigcirc \frac{3}{5}$

3. $\frac{5}{7} \bigcirc \frac{3}{8}$

4. $\frac{3}{6} \bigcirc \frac{2}{4}$

5. $\frac{8}{10} \bigcirc \frac{7}{9}$

6. $\frac{1}{2} \bigcirc \frac{8}{12}$

7. $\frac{2}{3} \bigcirc \frac{7}{8}$

8. $\frac{1}{5} \bigcirc \frac{2}{12}$

9. $\frac{3}{7} \bigcirc \frac{2}{5}$

10. $\frac{2}{4} \bigcirc \frac{4}{10}$

11. $\frac{3}{8} \bigcirc \frac{5}{6}$

12. $\frac{1}{9} \bigcirc \frac{5}{12}$

Name _____

Practice Sheet

4.NF.2

Compare fractions using benchmarks, common denominators, cross multiplying, and models

Put It All Together

Compare the fractions using one of the strategies below:

(1) Benchmark fractions (2) Common denominators (3) Cross multiplying

1. $\frac{3}{5} \bigcirc \frac{4}{10}$

2. $\frac{4}{12} \bigcirc \frac{3}{6}$

3. $\frac{2}{8} \bigcirc \frac{3}{8}$

4. $\frac{5}{6} \bigcirc \frac{2}{3}$



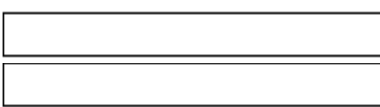
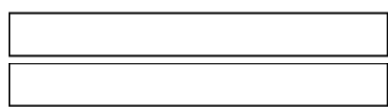
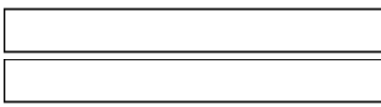
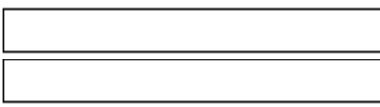
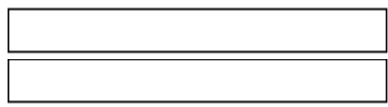
5. $\frac{2}{10} \bigcirc \frac{3}{9}$

6. $\frac{1}{3} \bigcirc \frac{4}{12}$

7. $\frac{3}{5} \bigcirc \frac{7}{8}$

8. $\frac{1}{5} \bigcirc \frac{7}{10}$

Use models to compare fractions 9 – 14.

<p>9. $\frac{2}{3} \bigcirc \frac{4}{6}$</p> <p>$\frac{2}{3}$ </p> <p>$\frac{4}{6}$ </p>	<p>10. $\frac{1}{6} \bigcirc \frac{3}{8}$</p> <p></p>	<p>11. $\frac{6}{10} \bigcirc \frac{5}{12}$</p> <p></p>
<p>12. $\frac{3}{6} \bigcirc \frac{1}{2}$</p> <p></p>	<p>13. $\frac{1}{8} \bigcirc \frac{4}{12}$</p> <p></p>	<p>14. $\frac{8}{10} \bigcirc \frac{4}{5}$</p> <p></p>

15. Ernie ate $\frac{3}{4}$ of his pizza. Graham ate $\frac{5}{6}$ of his pizza. Which boy ate more of his pizza? _____

Explain how you know.

16. Tara walked $\frac{8}{10}$ of a mile. Julie walked $\frac{6}{12}$ of a mile. How do you know Tara walked more?

- A. Because 8 is more than 6.
- B. Because $\frac{8}{10}$ is more than $\frac{1}{2}$ and $\frac{6}{12}$ is less than $\frac{1}{2}$.
- C. Because $\frac{8}{10}$ is more than $\frac{1}{2}$ and $\frac{6}{12}$ is exactly $\frac{1}{2}$.

Name _____

Practice Sheet

4.NF.2

Compare and order
3 fractions using an
outlier and cross
multiplying

Compare and Order Fractions

Fractions can be ordered from least to greatest or from greatest to least. Be careful to look for the key words when reading the directions 😊.

You will have 3 or more fractions to order, so try to find the outlier first (the fraction that is clearly the smallest or largest). Then, you can use any strategy you previously learned to determine the order of the others.

Order from <i>Least to Greatest</i>	Find Outlier Fraction	Used a Strategy to Compare Fractions	Fractions in Order
$\frac{3}{10}$, $\frac{1}{2}$, $\frac{2}{5}$	$\frac{1}{2}$ is the largest because it is = to 50%. $\frac{3}{10}$ and $\frac{2}{5}$ are smaller than $\frac{1}{2}$.	Now compare $\frac{3}{10}$ & $\frac{2}{5}$ Cross Multiply $\frac{3}{10} \times \frac{2}{5}$ 15 20	$\frac{3}{10}$, $\frac{2}{5}$, $\frac{1}{2}$

Write the fractions in order from least to greatest.

1. $\frac{2}{3}$, $\frac{1}{4}$, $\frac{5}{6}$

2. $\frac{2}{8}$, $\frac{1}{3}$, $\frac{9}{10}$

3. $\frac{1}{4}$, $\frac{1}{8}$, $\frac{3}{6}$

Write the fractions in order from greatest to least.

4. $\frac{7}{8}$, $\frac{1}{2}$, $\frac{2}{6}$

5. $\frac{2}{6}$, $\frac{2}{4}$, $\frac{2}{5}$

6. $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$

7. Elle ran $\frac{3}{8}$ mile, Ava ran $\frac{3}{4}$ mile, and McKenzie ran $\frac{3}{6}$ mile. Order the runners from greatest to least.

What strategy did you use?

8. Peter's math book weighs $\frac{3}{4}$ pound. His social studies book weighs $\frac{1}{2}$ pound, and his language book weighs $\frac{1}{8}$ pound. Order the weights of the books from lightest to heaviest.

What strategy did you use?

Name _____

Practice Sheet

4.NF.2

Compare and order
3 fractions using
common
denominatorsCompare and Order Fractions

To compare and order fractions, you can also find a common denominator. Then, compare the numerators.

Order from <i>least to greatest</i>	Step 1: Find Least Common Multiple (LCM)	Step 2: Multiply so that both fractions have the LCM as the denominator.	Step 3: Fractions in Order
$\frac{1}{4}, \frac{1}{2}, \frac{3}{8}$	4: 4, <u>8</u> , 12 2: 2, 4, <u>8</u> 8: <u>8</u> LCM = 8	$\frac{1}{4} \begin{array}{l} \boxed{\times 2} \\ = \end{array} \frac{2}{8}$ $\frac{1}{2} \begin{array}{l} \boxed{\times 4} \\ = \end{array} \frac{4}{8}$ $\frac{3}{8} \begin{array}{l} \boxed{\times 1} \\ = \end{array} \frac{3}{8}$	$\frac{1}{4}, \frac{3}{8}, \frac{1}{2}$

Write the fractions in order from least to greatest.

1. $\frac{1}{4}, \frac{3}{6}, \frac{1}{8}$

2. $\frac{1}{5}, \frac{7}{8}, \frac{3}{4}$

3. $\frac{1}{2}, \frac{2}{5}, \frac{6}{10}$

Write the fractions in order from greatest to least.

4. $\frac{6}{8}, \frac{1}{2}, \frac{4}{6}$

5. $\frac{1}{6}, \frac{3}{4}, \frac{2}{5}$

6. $\frac{3}{4}, \frac{5}{8}, \frac{1}{2}$

7. Jackson has three candy bars. The thicknesses of the bars are $\frac{3}{8}$ inch, $\frac{3}{4}$ inch, and $\frac{3}{6}$ inch. What are the thicknesses from greatest to least?

8. Macy, Kalee, and Jess all ran a marathon. Macy has completed $\frac{3}{4}$ of the marathon, Kalee has completed $\frac{1}{2}$ of the marathon, and Jess has completed $\frac{1}{8}$ of the marathon. Order the distances completed from shortest to longest.

Name _____

Practice Sheet

4.NF.2

Compare and order
3 fractions using
strategy of choice

Put It All Together

Compare the fractions below. Write $<$, $>$, or $=$ in the \bigcirc .

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

2. $\frac{4}{6} \bigcirc \frac{2}{3}$

3. $\frac{5}{8} \bigcirc \frac{3}{4}$

4. $\frac{7}{9} \bigcirc \frac{16}{18}$

5. $\frac{4}{10} \bigcirc \frac{4}{5}$

6. $\frac{1}{3} \bigcirc \frac{5}{15}$

7. $\frac{4}{5} \bigcirc \frac{7}{12}$

8. $\frac{1}{6} \bigcirc \frac{2}{12}$

9. $\frac{3}{8} \bigcirc \frac{8}{12}$

10. $\frac{2}{9} \bigcirc \frac{4}{8}$

11. $\frac{2}{8} \bigcirc \frac{3}{6}$

12. $\frac{1}{4} \bigcirc \frac{7}{12}$

Write the fractions in order from least to greatest.

13. $\frac{1}{5}$, $\frac{5}{10}$, $\frac{1}{3}$

14. $\frac{1}{6}$, $\frac{7}{12}$, $\frac{3}{8}$

15. $\frac{2}{3}$, $\frac{3}{5}$, $\frac{4}{15}$

Write the fractions in order from greatest to least.

16. $\frac{5}{8}$, $\frac{1}{3}$, $\frac{4}{6}$

17. $\frac{1}{4}$, $\frac{3}{8}$, $\frac{2}{10}$

18. $\frac{3}{6}$, $\frac{5}{12}$, $\frac{1}{10}$
