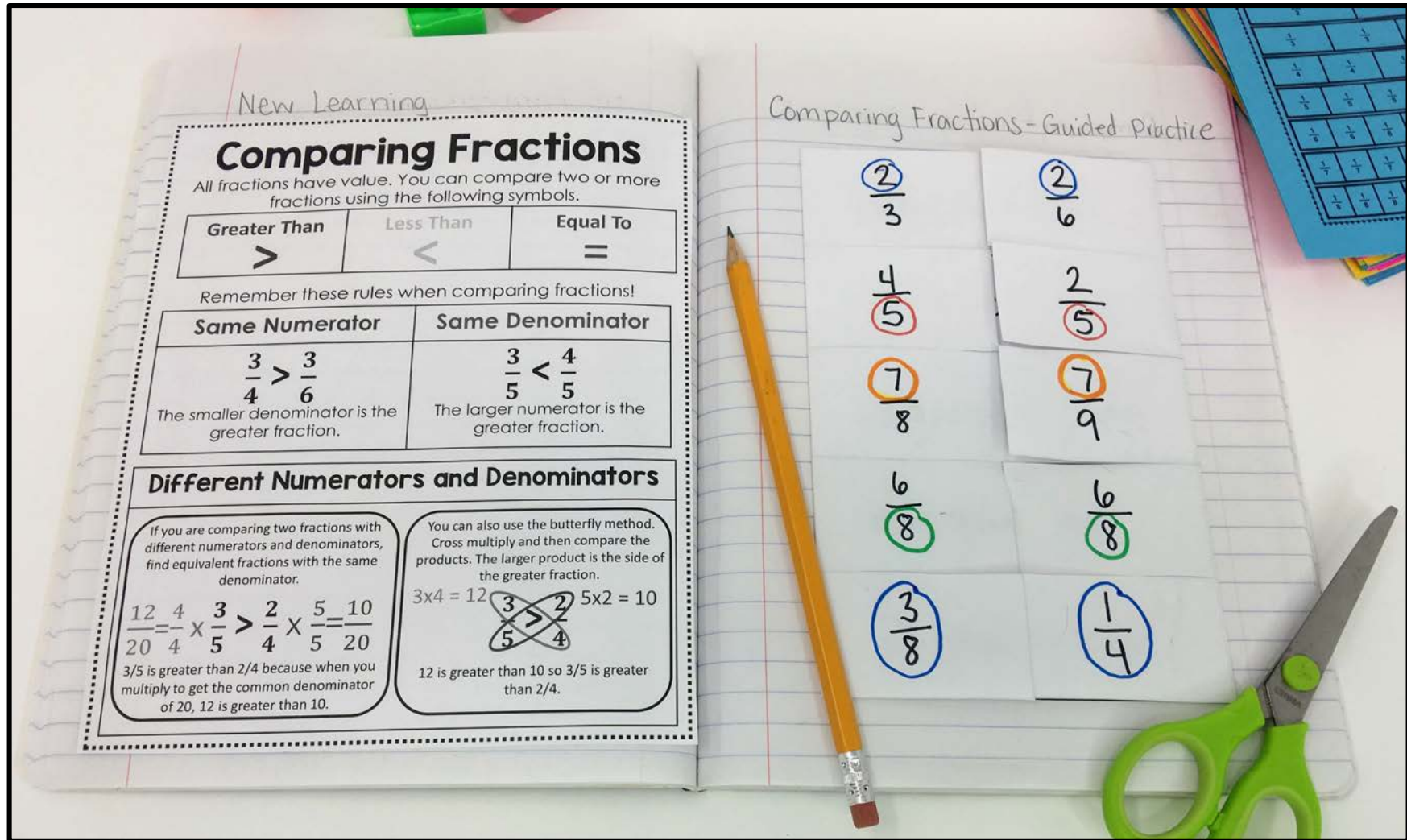


Fractions Interactive Math Notebook

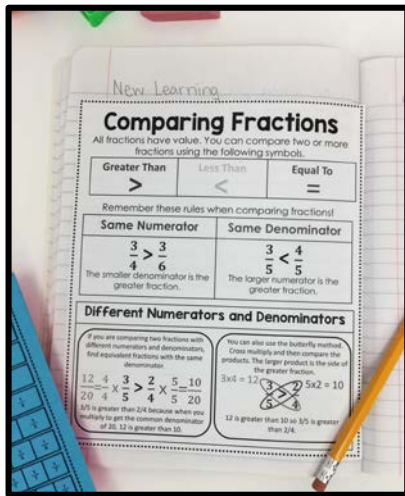


**Activities to
TEACH, REINFORCE and ASSESS
each skill**

What's Included?

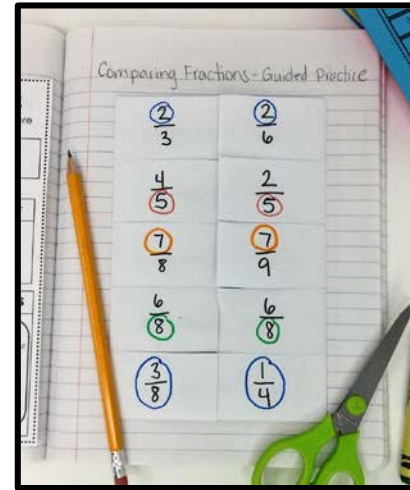
Each skill has these four elements:

Anchor Chart



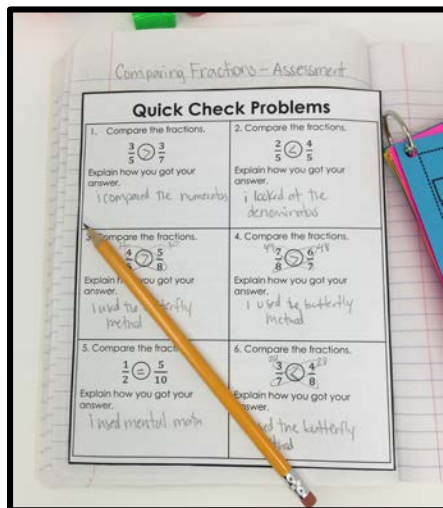
Great tool to introduce new math skill to students. Student friendly and fits perfectly in journals.

Interactive Foldable



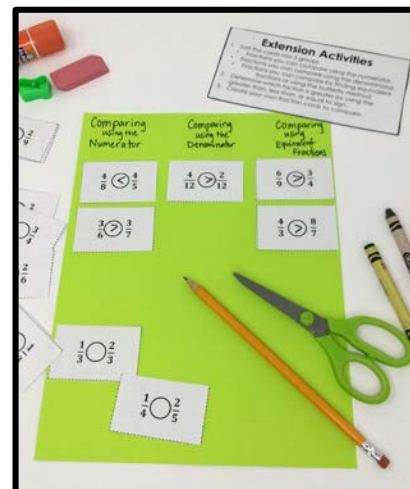
Works great as guided practice and gives students an interactive opportunity to practice the new skill.

Exit Ticket



Great way to assess students at the end of the lesson or to use as a spiral review a few weeks after the lesson is taught.

Extension Activity





Works great as early finisher work or in a math work station.

What Skills are Covered?

Representing Fractions

Fractions can be represented in a variety of ways.

<p>Standard Form</p> <p>You can represent a fraction by using digits and a fraction bar.</p> <p>$\frac{1}{2}$</p>	<p>Word Form</p> <p>You can represent a fraction by using only words.</p> <p>one half</p>
<p>Fraction of a Whole</p> <p>You can represent a fraction by shading in part of a whole.</p> 	<p>Fraction of a Set</p> <p>You can represent a fraction by shading in part of set.</p> 




Practice:

Standard Form	Word Form
Fraction of a Whole	Fraction of a Set

Representing Fractions - Color Anchor Chart





Decomposing Fractions

When you decompose a fraction you break it down into smaller parts.


 $=$

 $+$


 $\frac{3}{4} = \frac{2}{4} + \frac{1}{4}$

You can also decompose a fraction as a series of unit fractions. A unit fraction will always have 1 in the numerator.



 $=$

 $+$

 $+$


 $\frac{3}{4} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$

Decomposing Fractions - Color Anchor Chart

Equivalent Fractions

Equivalent fractions are fractions that have the same value. When looking at models of equivalent fractions, they have to be the same shape and size.



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

These models all show equivalent fractions. The same amount is shaded in on each rectangle.

To find equivalent fractions, you can multiply or divide.

Find Equivalent Fractions by Multiplying	Find Equivalent Fractions by Dividing
$\frac{1}{2} \times \frac{4}{4} = \frac{4}{8}$	$\frac{2}{4} \div \frac{2}{2} = \frac{1}{2}$

You can find an equivalent fraction by multiplying the numerator and denominator by the same number.

You can find an equivalent fraction by dividing the numerator and denominator by the same number.

Equivalent Fractions - Color Anchor Chart

Representing Fractions

Decomposing Fractions

Equivalent Fractions

Comparing Fractions

All fractions have value. You can compare two or more fractions using the following symbols.

Greater Than	Less Than	Equal To
$>$	$<$	$=$

Remember these rules when comparing fractions!

<p>Same Numerator</p> $\frac{3}{4} > \frac{3}{6}$ <p>The smaller denominator is the greater fraction.</p>	<p>Same Denominator</p> $\frac{3}{5} < \frac{4}{5}$ <p>The larger numerator is the greater fraction.</p>
--	---

Different Numerators and Denominators

If you are comparing two fractions with different numerators and denominators, find equivalent fractions with the same denominator.

 $\frac{12}{20} = \frac{4}{5} \times \frac{3}{3} > \frac{2}{4} \times \frac{5}{5} = \frac{10}{20}$

$\frac{3}{5}$ is greater than $\frac{2}{4}$ because when you multiply to get the common denominator of 20, 12 is greater than 10.

You can also use the butterfly method. Cross multiply and then compare the products. The larger product is the side of the greater fraction.

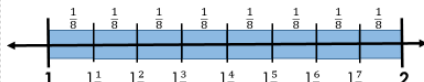
 $3 \times 4 = 12$ $3 > 2$ $5 \times 2 = 10$

12 is greater than 10 so $\frac{3}{5}$ is greater than $\frac{2}{4}$.

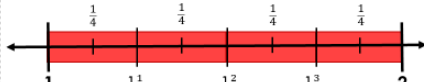
Comparing Fractions - Color Anchor Chart

Fractions on a Number Line

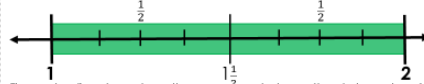
You can show fractions by using a number line. You can break up the space between two whole numbers into different fractions.



The number line above shows the space between the whole numbers 1 and 2. It is divided into eighths. There are eight sections between 1 and 2.



The number line above shows the same space between the whole numbers 1 and 2, but it is divided into fourths. There are four sections between 1 and 2. Notice there are two eighths in every one fourth section.



The number line above shows the same space between the whole numbers 1 and 2, but it is divided into halves. There are two sections between 1 and 2. Do you notice any small sections in the halves?

Fractions on a Number Line - Color Anchor Chart

Comparing Fractions

Fractions on a Number Line



Additional Features

- Includes **assembly notes** and **directions** for each entry
- Includes **answer key** for each exit ticket
- Includes **black and white** or **color options** for each anchor chart

Representing Fractions – Assembly Notes & Directions

Anchor Chart
Make enough copies for students. Have students cut and paste in their math journal. Review anchor chart with students as you would a full size anchor chart. Students will be able to reference back to this page if they have questions about place value.


Foldable
See the example provided in the pictures to the right. Create foldable with students. You can modify the examples to meet your students specific learning needs.


Representing Fractions - Outside

Representing Fractions - Inside

Created by Two Teachers with Style © 2015

Quick Check Problems - KEY

1. Look at the model. What fraction does it represent? Write it in standard form and word form.

 $\frac{3}{4}$
 three fourths

2. Look at the model. What fraction does it represent? Write it in standard form and word form.

 $\frac{3}{5}$
 three fifths

3. Draw a set model to represent the fraction $\frac{4}{7}$.
 Answers will vary.



4. Draw a fraction of a whole to show $\frac{2}{4}$.
 Answers will vary.

5. What are two ways to represent the fraction two thirds?
 $\frac{2}{3}$
 Students can also draw a fraction set or a fraction model

6. What are two ways you can represent the fraction $\frac{6}{8}$?
 Sixth eighths
 Students can also draw a fraction set or a fraction model

Representing Fractions – Quick Check Key

Representing Fractions
Fractions can be represented in a variety of ways.

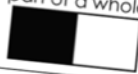

Standard Form You can represent a fraction by using digits and a fraction bar. $\frac{1}{2}$	Word From You can represent a fraction by using only words. one half
Fraction of a Whole You can represent a fraction by shading in part of a whole. 	Fraction of a Set You can represent a fraction by shading in part of set. 

Practice:

Standard Form	Word Form
Fraction of a Whole	Fraction of a Set

Representing Fractions – Color Anchor Chart

Representing Fractions
Fractions can be represented in a variety of ways.

Standard Form You can represent a fraction by using digits and a fraction bar. $\frac{1}{2}$	Word From You can represent a fraction by using only words. one half
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Practice:

Standard Form	Word Form
Fraction of a Whole	Fraction of a Set

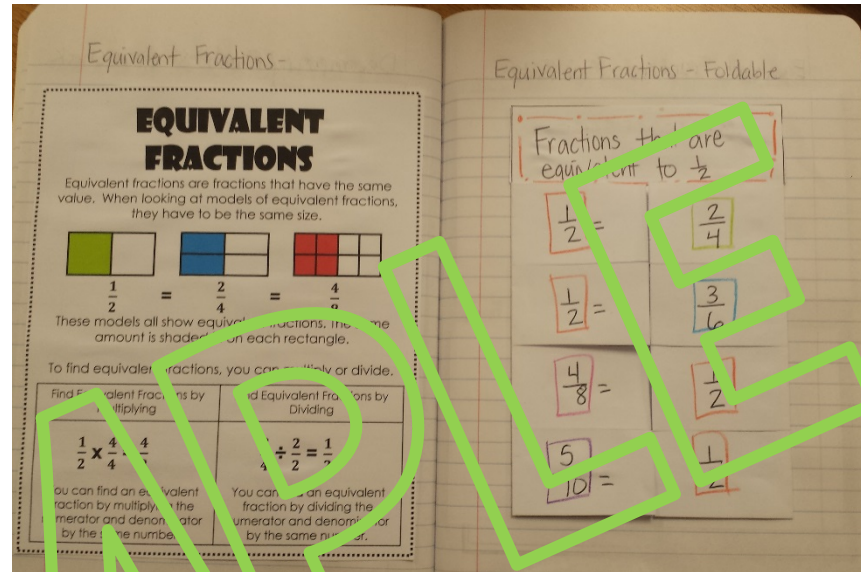
Representing Fractions – Black and White Anchor Chart



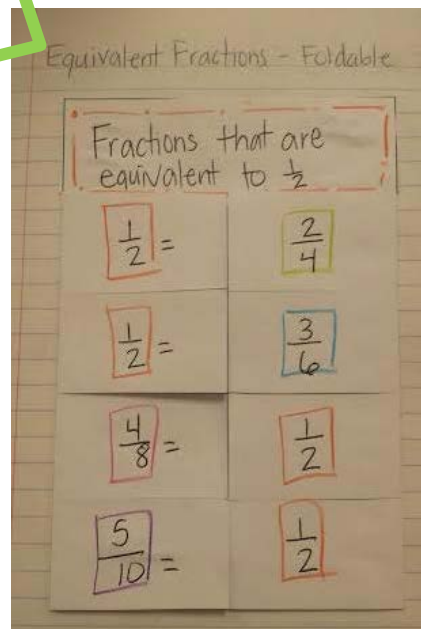
Equivalent Fractions – Assembly Notes & Directions

Anchor Chart

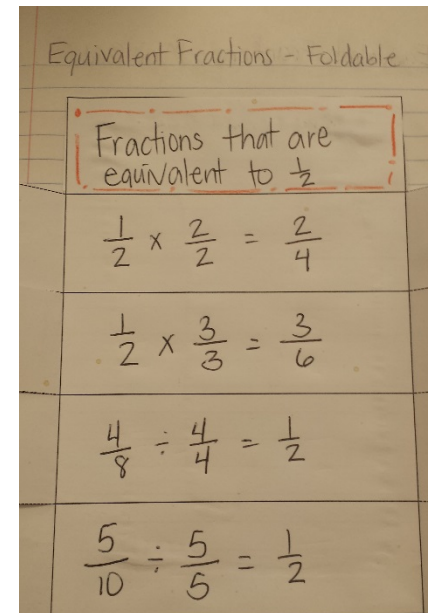
Make enough copies for students. Have students cut and paste in their math journal. Review anchor chart with students as you would a full size anchor chart. Students will be able to reference back to this page if they have questions about place value.



Foldable - Outside



Foldable - Inside



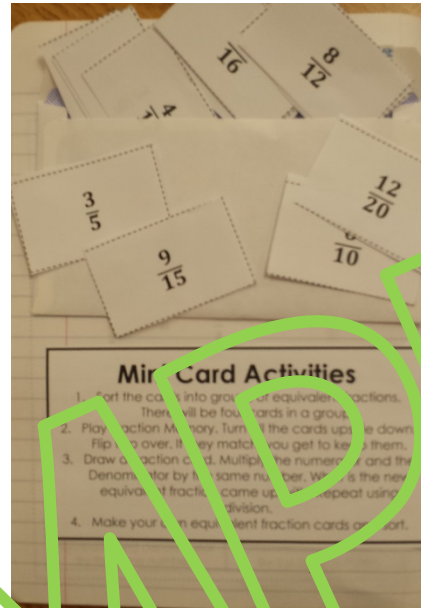
Foldable

See the example provided in the pictures to the right. Create a foldable with students. You can modify the examples to meet your students specific learning needs.

Equivalent Fractions – Assembly Notes & Directions

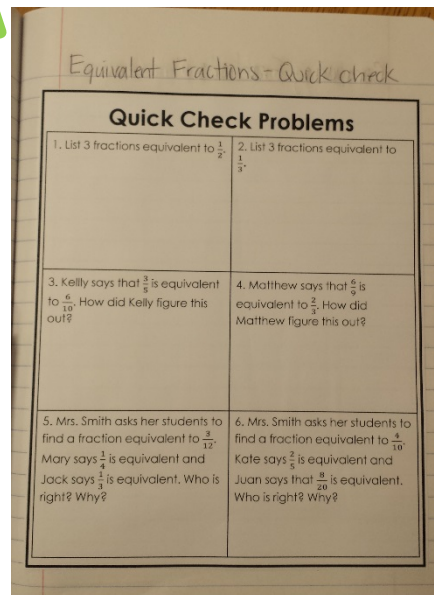
Extension Activities

Give each student a copy of the Extension Activities list to place in their journal as well as a copy of the mini cards. Have students glue a small envelope into their math journal to store their mini cards. You can use the mini card activities as an extension or early finisher activity.



Quick Check

Give each student a copy of the Quick Check sheet. Students can glue them in their math journal as a reference page, or you can collect them. The quick check can be used as a formative assessment to see where your students level of mastery is after you have spent a few days practicing the skill.



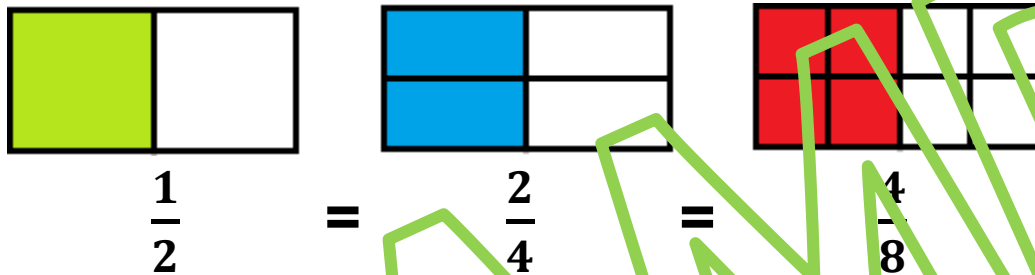
Quick Check

Quick Check - Key

Quick Check Problems - KEY	
1. List 3 fractions equivalent to $\frac{1}{2}$. 2/4, 3/6, 4/8, 5/10, 6/12	2. List 3 fractions equivalent to $\frac{1}{3}$. 2/6, 3/9, 4/12, 5/15
3. Kelly says that $\frac{2}{5}$ is equivalent to $\frac{6}{10}$. How did Kelly figure this out? She multiplied 2/5 by 2/2 to get 4/10	4. Matthew says that $\frac{6}{9}$ is equivalent to $\frac{2}{3}$. How did Matthew figure this out? He divided 6/9 by 3/3 to get 2/3
5. Mrs. Smith asks her students to find a fraction equivalent to $\frac{3}{12}$. Mary says $\frac{1}{4}$ is equivalent and Jack says $\frac{1}{3}$ is equivalent. Who is right? Why? Mary is right because 3/12 divided by 3/3 equals 1/4	6. Mrs. Smith asks her students to find a fraction equivalent to $\frac{8}{20}$. Kate says $\frac{2}{5}$ is equivalent and Juan says that $\frac{4}{25}$ is equivalent. Who is right? Why? They are both right. Because 4/10 multiplied by 2/2 equals 8/20 and 4/10 divided by 2/2 equals 2/5

Equivalent Fractions

Equivalent fractions are fractions that have the same value. When looking at models of equivalent fractions, they have to be the same shape and size.



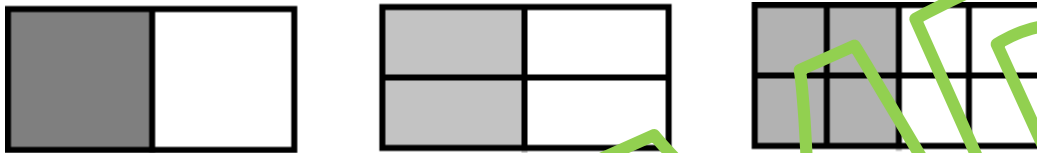
These models all show equivalent fractions. The same amount is shaded in on each rectangle.

To find equivalent fractions, you can multiply or divide.

Find Equivalent Fractions by Multiplying	Find Equivalent Fractions by Dividing
$\frac{1}{2} \times \frac{4}{4} = \frac{4}{8}$ <p>You can find an equivalent fraction by multiplying the numerator and denominator by the same number.</p>	$\frac{2}{4} \div \frac{2}{2} = \frac{1}{2}$ <p>You can find an equivalent fraction by dividing the numerator and denominator by the same number.</p>

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Cut off tab completely		Cut off tab completely

SAMPLE

Extension Activities

1. Sort the cards into groups of equivalent fractions.
There will be four cards in a group.
2. Play Fraction Memory. Turn all the cards upside down. Flip two over. If they match, you get to keep them.
3. Draw a fraction card. Multiply the numerator and the Denominator by the same number. What is the new equivalent fraction came up with. Repeat using division.
4. Make your own equivalent fraction cards and sort

Extension Activities

1. Sort the cards into groups of equivalent fractions.
There will be four cards in a group.
2. Play Fraction Memory. Turn all the cards upside down. Flip two over. If they match, you get to keep them.
3. Draw a fraction card. Multiply the numerator and the Denominator by the same number. What is the new equivalent fraction came up with. Repeat using division.
4. Make your own equivalent fraction cards and sort.

$$\frac{1}{2}$$

$$\frac{2}{4}$$

$$\frac{3}{6}$$

$$\frac{4}{8}$$

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

$$\frac{2}{6}$$

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

$$\frac{4}{12}$$

$$\frac{1}{4}$$

$$\frac{2}{8}$$

$$\frac{3}{12}$$

$$\frac{4}{16}$$

$$\frac{2}{3}$$

$$\frac{4}{6}$$

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

$$\frac{8}{12}$$

$$\frac{3}{5}$$

$$\frac{6}{10}$$

$$\frac{9}{15}$$

$$\frac{12}{20}$$

SAMPLE

SAMPLE

Quick Check Problems

1. List 3 fractions equivalent to $\frac{1}{2}$.

2. List 3 fractions equivalent to $\frac{1}{3}$.

3. Kelly says that $\frac{3}{5}$ is equivalent to $\frac{6}{10}$. How did Kelly figure this out?

4. Matthew says that $\frac{6}{9}$ is equivalent to $\frac{2}{3}$. How did Matthew figure this out?

5. Mrs. Smith asks her students to find a fraction equivalent to $\frac{3}{12}$. Mary says $\frac{1}{4}$ is equivalent and Jack says $\frac{1}{3}$ is equivalent. Who is right? Why?

6. Mrs. Smith asks her students to find a fraction equivalent to $\frac{4}{10}$. Kate says $\frac{2}{5}$ is equivalent and Juan says that $\frac{8}{20}$ is equivalent. Who is right? Why?

SAMPLE

Quick Check Problems - KEY

1. List 3 fractions equivalent to $\frac{1}{2}$.

$\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10}, \frac{6}{12}$

2. List 3 fractions equivalent to $\frac{1}{3}$.

$\frac{2}{6}, \frac{3}{9}, \frac{4}{12}, \frac{5}{15}$

3. Kelly says that $\frac{3}{5}$ is equivalent to $\frac{6}{10}$. How did Kelly figure this out?

She multiplied $\frac{2}{5}$ by $\frac{2}{2}$ to get $\frac{6}{10}$.

4. Matthew says that $\frac{6}{9}$ is equivalent to $\frac{2}{3}$. How did Matthew figure this out?

He divided $\frac{6}{9}$ by $\frac{3}{3}$ to get $\frac{2}{3}$.

5. Mrs. Smith asks her students to find a fraction equivalent to $\frac{3}{12}$.

Mary says $\frac{1}{4}$ is equivalent and Jack says $\frac{1}{3}$ is equivalent. Who is right? Why?

Mary is right because $\frac{3}{12}$ divided by $\frac{3}{3}$ equals $\frac{1}{4}$.

6. Mrs. Smith asks her students to find a fraction equivalent to $\frac{4}{10}$. Kate says $\frac{2}{5}$ is equivalent and Juan says that $\frac{8}{20}$ is equivalent. Who is right? Why?

They are both right. Because $\frac{4}{10}$ multiplied by $\frac{2}{2}$ equals $\frac{8}{20}$ and $\frac{4}{10}$ divided by $\frac{2}{2}$ equals $\frac{2}{5}$.

SAMPLE