

Comparing & Ordering Fractions

Module 3
Session 2

Today's Activities

- Review from last session
- Create a unit fractions set

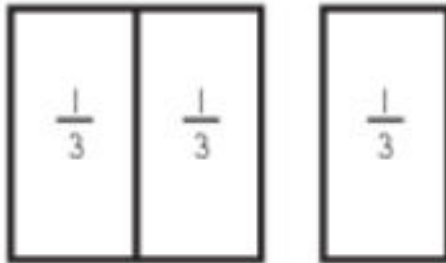
Review from last session

- If you like cookies, would you rather be in a group of 2 people sharing one cookie or 3 people sharing one cookie? Why?
- Would you rather be in a group of 2 people sharing 1 cookie or 6 people sharing two cookies? Why?
- Would you rather be in a group of 50 people sharing or 25 people sharing? Why?

Unit Fractions Set - Thirds

You are going to use the paper rectangles you folded and labeled last session to create a set of unit fractions.

First, fold one of the rectangles from last session into 3 equal parts and label each part. Then cut one third and leave the other part together.



Unit Fractions Set - Thirds

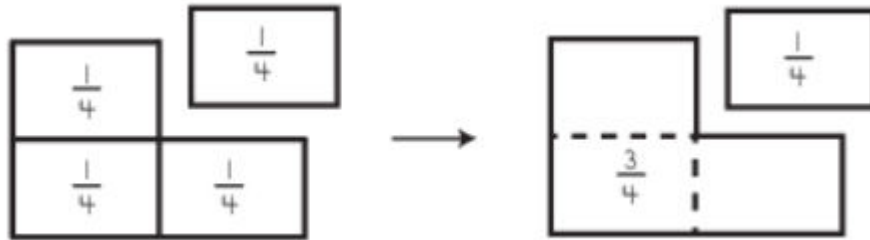
Flip the larger of the two parts over and discuss how should we label it?



Move to reveal

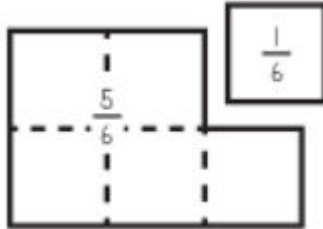
Unit Fractions Set - Fourths

Next, fold one of the rectangles from last session into 4 equal parts and label each part. Then cut one fourth and leave the other part together. Flip the larger of the two pieces over and label it.



Unit Fractions Set - Sixths & Eighths

Next, carefully cut out one of the shares from each rectangular cookie you folded yesterday, and then flip the remaining, larger, portion of each over and label it. Then cut one fourth and leave the other part together. Flip the larger of the two pieces over and label it.



Ordering Unit Fractions

Line up your unit fraction pieces in order from largest to smallest.

Ordering Unit Fractions

Line up your unit fraction pieces in order from largest to smallest.

What do you notice?

Giant Cookies

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

$\frac{1}{2} > \frac{1}{3}$ $\frac{1}{8} < \frac{1}{6}$

$\frac{1}{2}$ is the biggest, $\frac{1}{8}$ is the smallest

If you put all the fraction pieces together, it would be more than 1 whole cookie.

That same number of pieces makes one whole cookie, like 3 thirds makes a whole and 4 fourths makes a whole.

Unit Fractions

- * If 4 is greater than 2, why is $\frac{1}{2}$ greater than $\frac{1}{4}$?
- * Why is $\frac{1}{8}$ less than $\frac{1}{4}$ when 8 is twice as big as 4?
- * What happens when you share one cookie with more and more people? Why?
- * What does the denominator (number on the bottom of the fraction) mean in the context of fair shares?
- * What happens as the denominator gets larger? Why?

Unit Fractions - Licorice Whips

Now we are going to work together to fold, cut, label, and orders a set of unit fractions, just like we did with our paper cookies.

Predict: Will $\frac{1}{2}$ still be more than $\frac{1}{4}$?

Will $\frac{1}{8}$ of one of the strips be smaller than $\frac{1}{4}$ of another?

How do you know?

Unit Fractions - Licorice Whips

Create strips for:

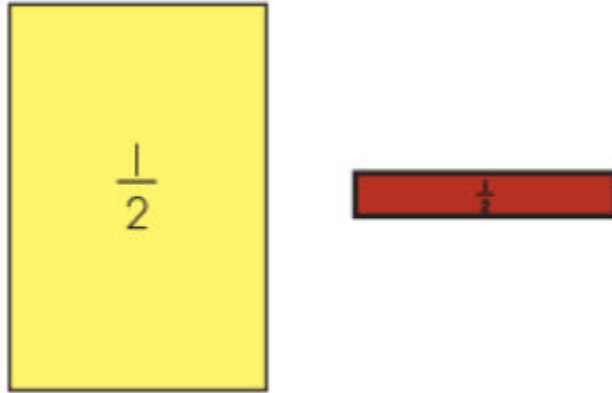
- $1/1$
- $1/2$
- $1/3$
- $1/4$
- $1/6$
- $1/8$

Order your strips from greatest to smallest.

*Is it still true that the more people you share with, the less you get?

*Is it still true that the bigger the denominator, the smaller the fraction?

Unit Fractions - Licorice Whips



Are these both one-half? How can that be?

Which half would you rather have? Why?

Which half is bigger? How do you know?

Does the size of the whole matter? Why?

Closing

Put your paper fraction pieces back in the envelopes

- Mix up the pieces thoroughly as you put them away
- Take these home and challenge someone to put the pieces back together to form whole rectangles.

Optional

Complete Comparing Unit Fractions on page 129 in your student book.