

# Eureka Math

## 1st Grade Module 5 Lesson 8

At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

Directions for customizing presentations are available on the next slide.

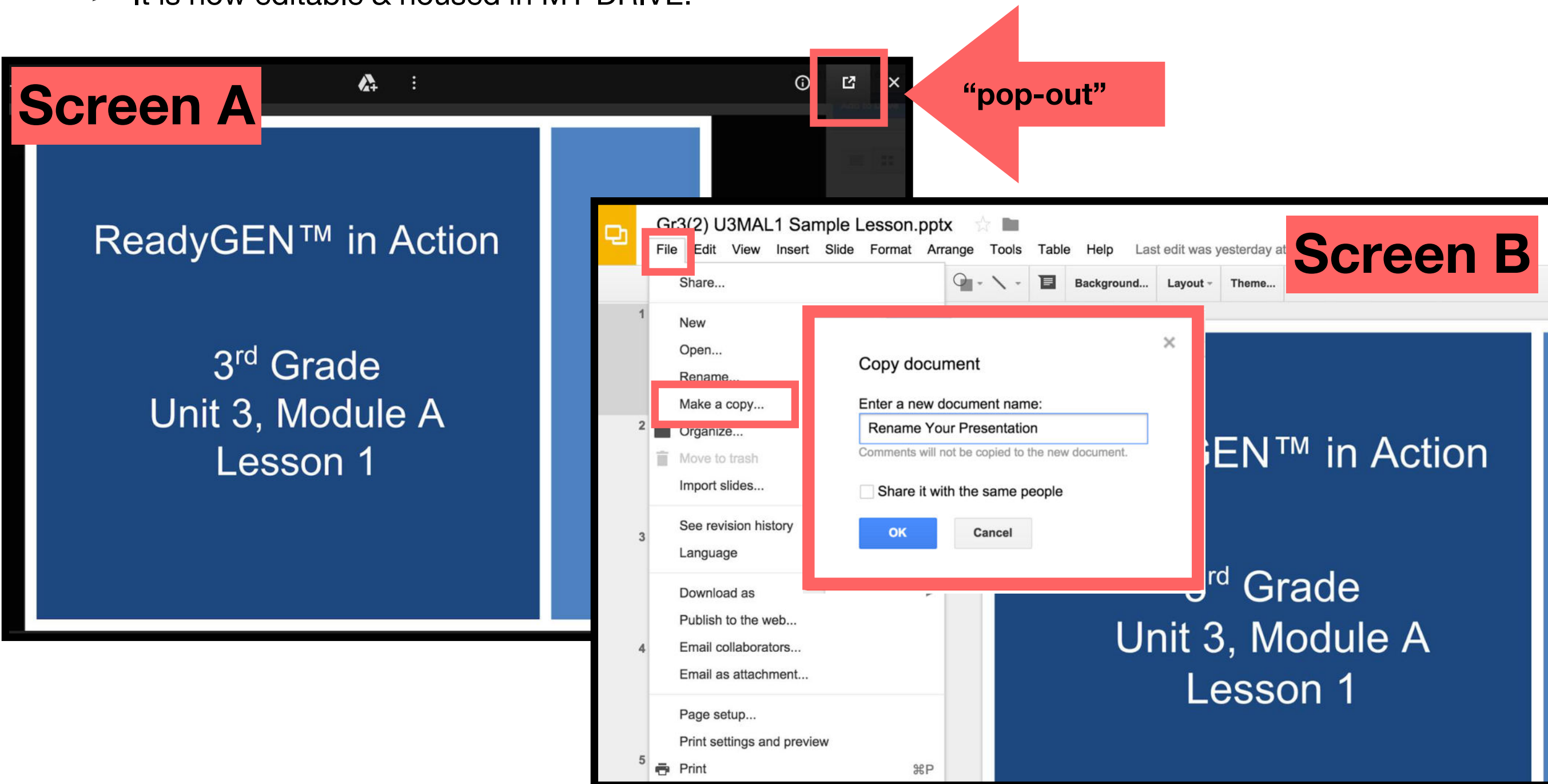


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# Customize this Slideshow

## Reflecting your Teaching Style and Learning Needs of Your Students

- When the Google Slides presentation is opened, it will look like Screen A.
- Click on the “pop-out” button in the upper right hand corner to change the view.
- The view now looks like Screen B.
- Within Google Slides (not Chrome), choose FILE.
- Choose MAKE A COPY and rename your presentation.
- Google Slides will open your renamed presentation.
- It is now editable & housed in MY DRIVE.



# Icons



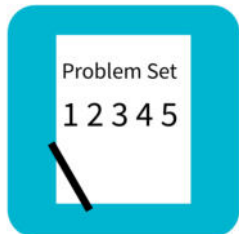
Read, Draw, Write



Learning Target



Personal White Board



Problem Set



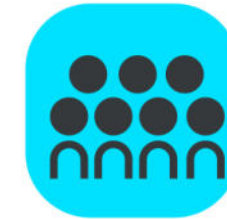
Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



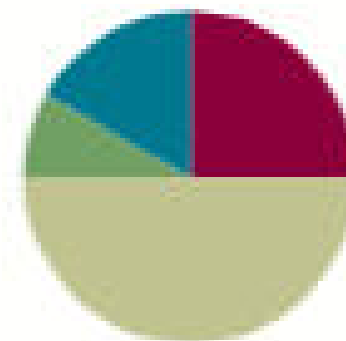
Small Group Time

## Lesson 8

**Objective:** Partition shapes and identify halves and quarters of circles and rectangles.

### Suggested Lesson Structure

|                       |                     |
|-----------------------|---------------------|
| ■ Fluency Practice    | (15 minutes)        |
| ■ Application Problem | (5 minutes)         |
| ■ Concept Development | (30 minutes)        |
| ■ Student Debrief     | (10 minutes)        |
| <b>Total Time</b>     | <b>(60 minutes)</b> |



# Materials Needed

Teacher:

- (T) Example images (Template 1)
- circles and rectangles (Template 2)

Student:

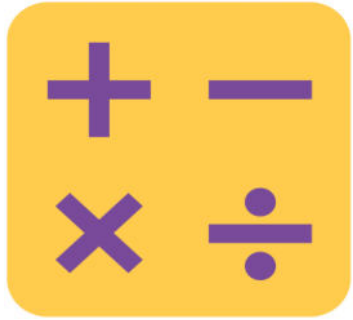
- (S) Circles and rectangles (Template 2)

Note: The circles and rectangles template should be cut in half.

Distribute the top half—images of pizza—to students at the start of the lesson.



I can partition shapes and identify halves and quarters of circles and rectangles.



# Core Fluency Sprint

A STORY OF UNITS

Lesson 1 Core Addition Sprint 1

1•5

A

Name \_\_\_\_\_

Number Correct: 

Date \_\_\_\_\_

\*Write the unknown number. Pay attention to the symbols.

|     |                              |     |                                 |
|-----|------------------------------|-----|---------------------------------|
| 1.  | $4 + 1 = \underline{\quad}$  | 16. | $4 + 3 = \underline{\quad}$     |
| 2.  | $4 + 2 = \underline{\quad}$  | 17. | $\underline{\quad} + 4 = 7$     |
| 3.  | $4 + 3 = \underline{\quad}$  | 18. | $7 = \underline{\quad} + 4$     |
| 4.  | $6 + 1 = \underline{\quad}$  | 19. | $5 + 4 = \underline{\quad}$     |
| 5.  | $6 + 2 = \underline{\quad}$  | 20. | $\underline{\quad} + 5 = 9$     |
| 6.  | $6 + 3 = \underline{\quad}$  | 21. | $9 = \underline{\quad} + 4$     |
| 7.  | $1 + 5 = \underline{\quad}$  | 22. | $2 + 7 = \underline{\quad}$     |
| 8.  | $2 + 5 = \underline{\quad}$  | 23. | $\underline{\quad} + 2 = 9$     |
| 9.  | $3 + 5 = \underline{\quad}$  | 24. | $9 = \underline{\quad} + 7$     |
| 10. | $5 + \underline{\quad} = 8$  | 25. | $3 + 6 = \underline{\quad}$     |
| 11. | $8 = 3 + \underline{\quad}$  | 26. | $\underline{\quad} + 3 = 9$     |
| 12. | $7 + 2 = \underline{\quad}$  | 27. | $9 = \underline{\quad} + 6$     |
| 13. | $7 + 3 = \underline{\quad}$  | 28. | $4 + 4 = \underline{\quad} + 2$ |
| 14. | $7 + \underline{\quad} = 10$ | 29. | $5 + 4 = \underline{\quad} + 3$ |
| 15. | $\underline{\quad} + 7 = 10$ | 30. | $\underline{\quad} + 7 = 3 + 6$ |



# Whisper Count

Whisper count with me. Say the circled numbers out loud. Continue counting to 30.



# Make Ten Addition with Partners

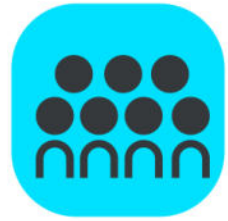
You will work with a partner!

- Choose an addend between 1 and 10
- On your personal whiteboard, add the number you chose to 9, 8, and 7.  
Write the two addition sentences for making 10.
- Exchange personal white boards and check your partner's work!

# Application Problem

A green rounded square containing the white text "RDW".

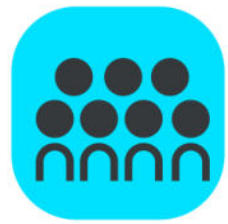
Peter set up 5 rectangular prisms to make 5 towers. He put a cone on top of 3 of the towers. How many more cones does Peter need to have a cone on every tower?



# Concept Development



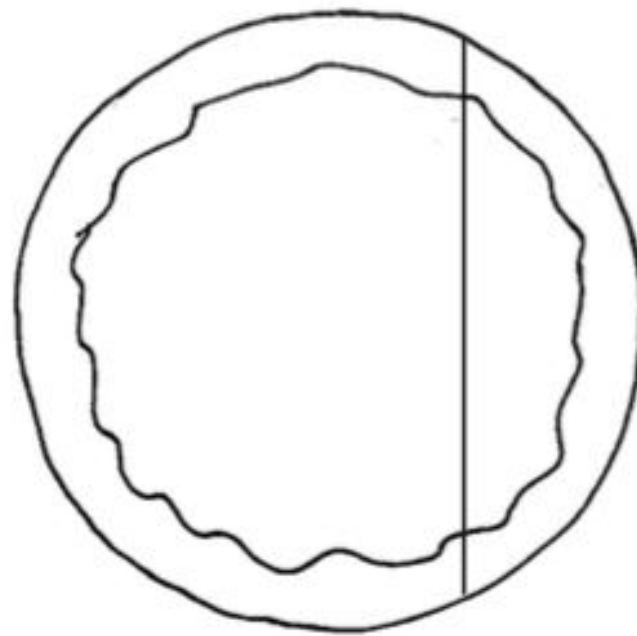
Two lessons ago, we made many different shapes using two or more of these tangram pieces. Can you think of any shapes we made?

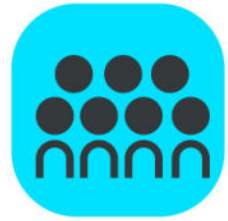


# Concept Development



Last night, my brother and I bought a small pizza to share. We agreed we would each eat half of the pizza, or one out of two equal parts. My brother cut the pizza for us to share, and it looked like this.

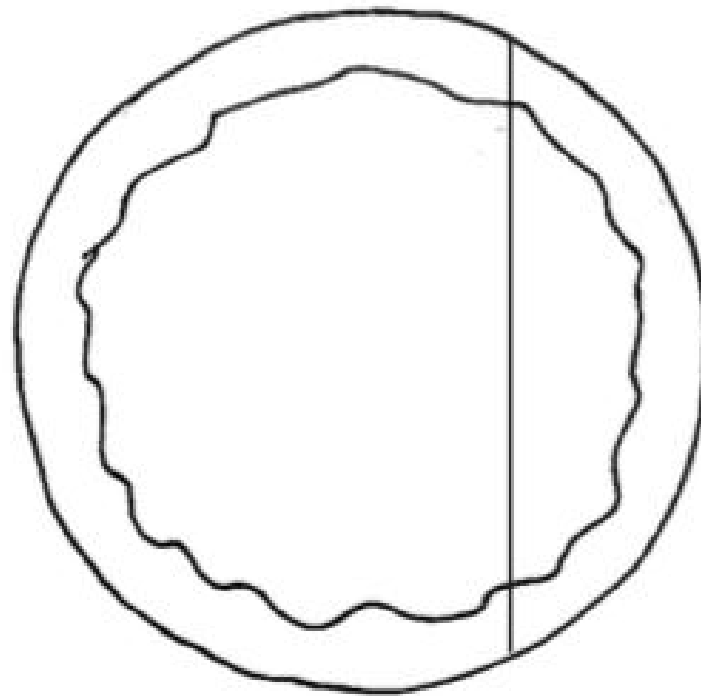


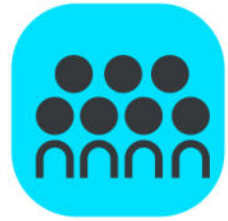


# Concept Development



Why do you think I was mad? What's wrong with my brother's version of fair shares?

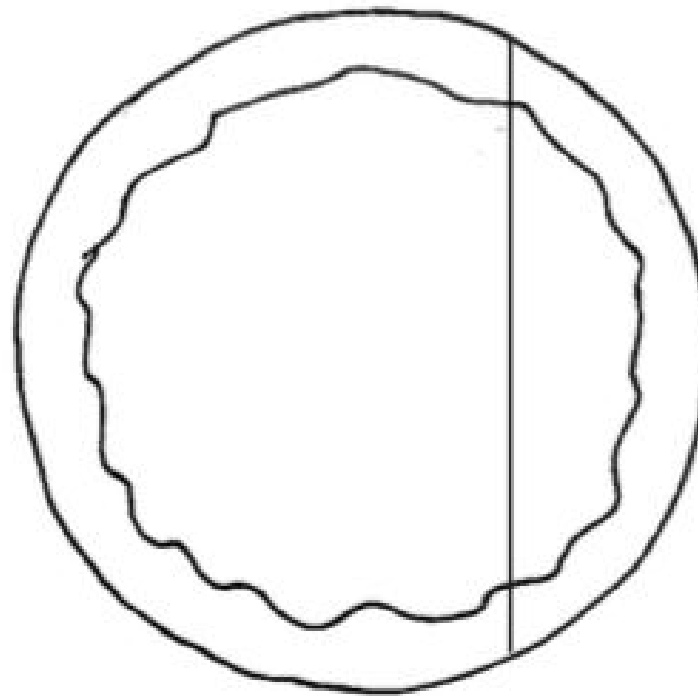


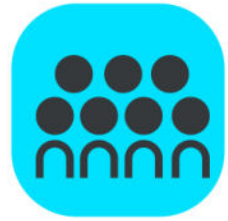


# Concept Development



One piece is much bigger than the other piece! They are not cut into equal parts!

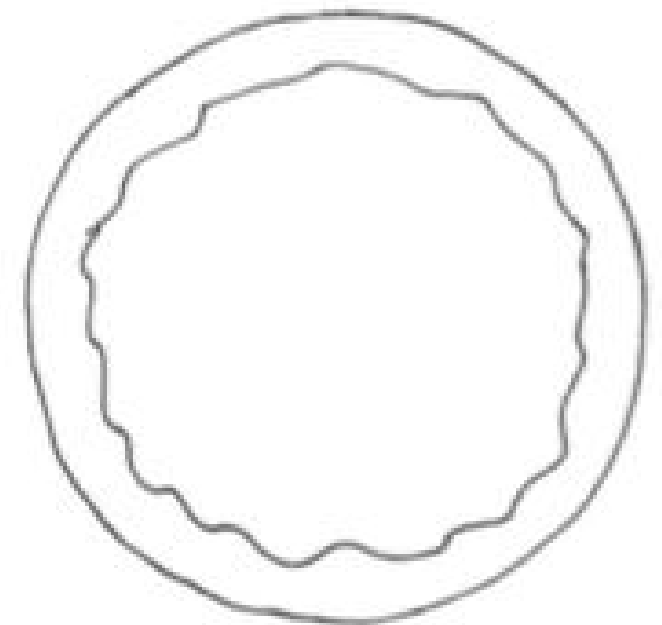


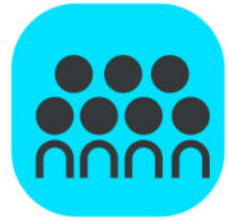


# Concept Development



If my brother and I are going to share this pizza fairly, we need to each have an equal part. To have one half of the pizza, the two parts need to be the same size. On your personal white boards, draw a line to show how the pizza should have been cut.

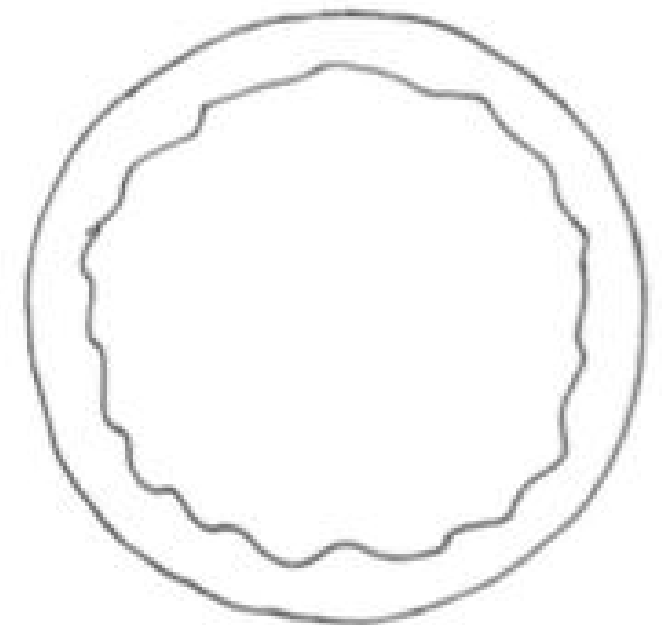


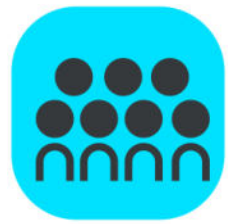


# Concept Development



If my brother and I are going to share this pizza fairly, we need to each have an equal part. To have one half of the pizza, the two parts need to be the same size. On your personal white boards, draw a line to show how the pizza should have been cut.

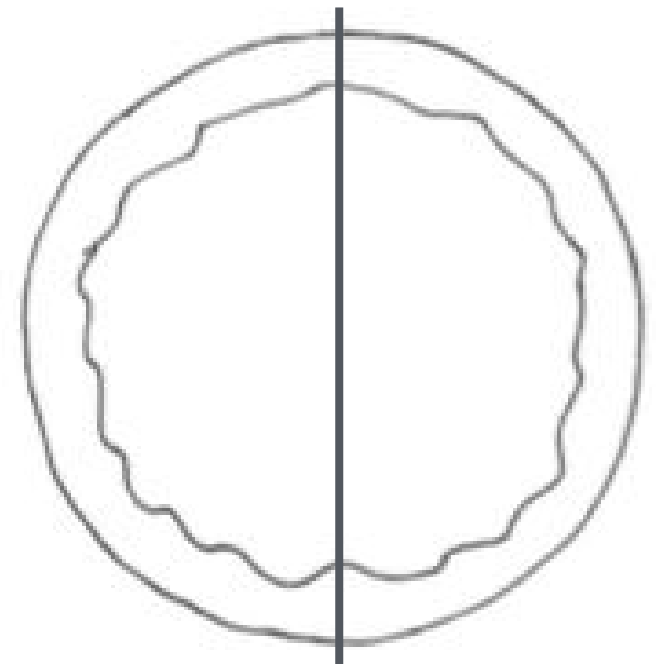


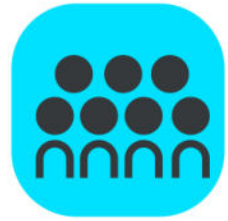


# Concept Development



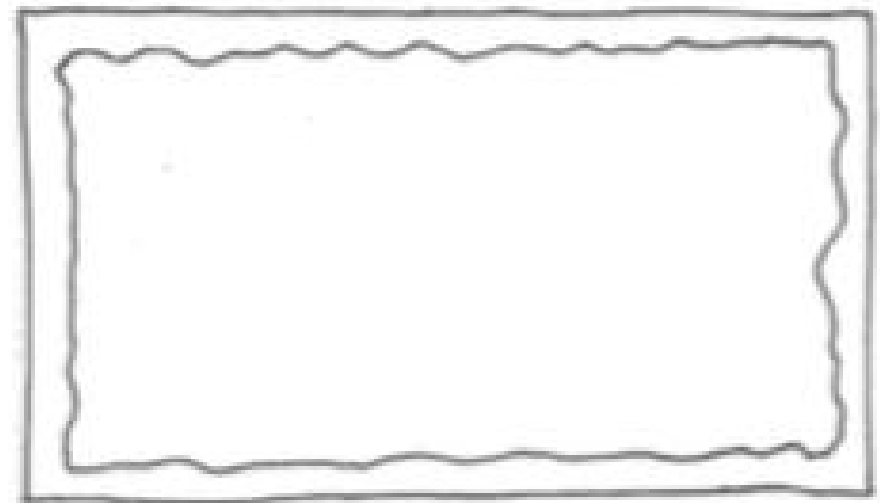
Yes! Now, I can get one half of the pizza because each of the two parts is the same size.

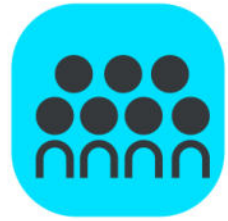




# Concept Development

Sometimes we buy Sicilian pizza, which is shaped like a rectangle. How can we cut this to be in two equal parts, or two halves of the pizza? Draw a line on your personal white boards to show how you would cut the rectangular pizza.

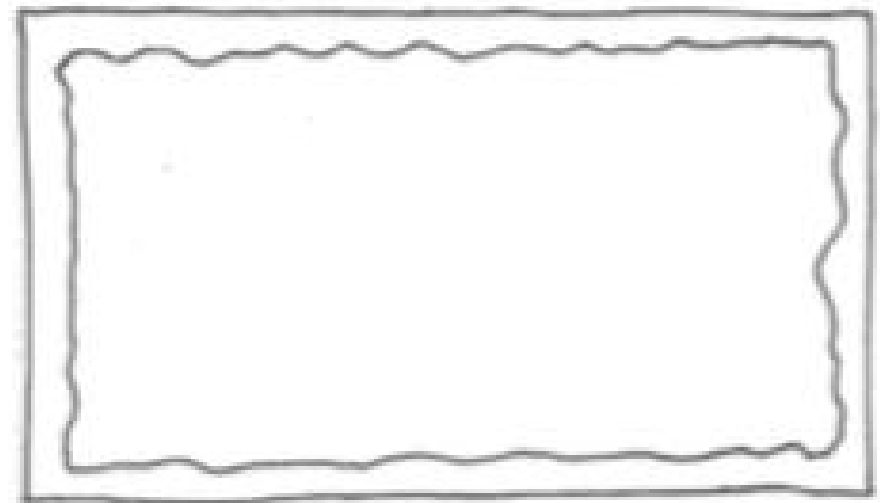


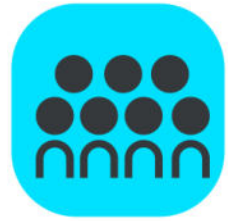


# Concept Development



I see more than one idea. Who would like to share how he cut the pizza to be two equal parts, two halves of the pizza?

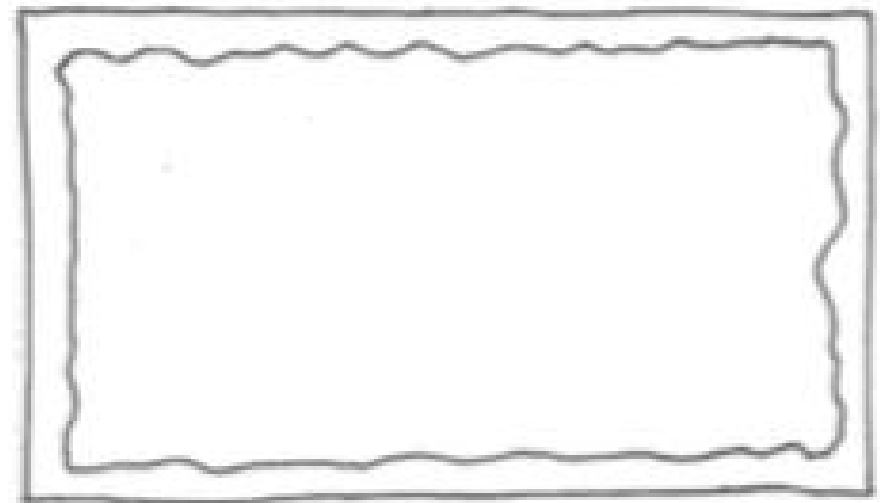


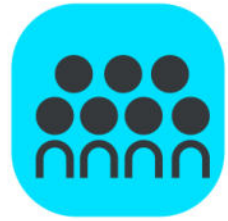


# Concept Development



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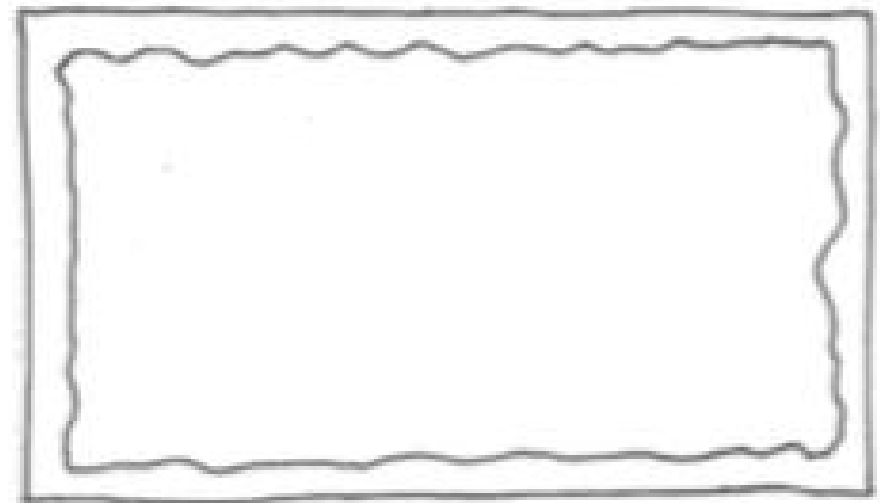


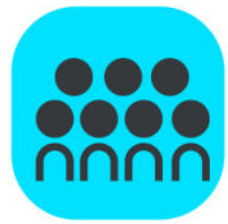
# Concept Development



Did we hear these ideas/

I cut the pizza across (horizontally.) I cut the pizza up and down (vertically.) I cut the pizza across from one corner to the other (diagonally.)

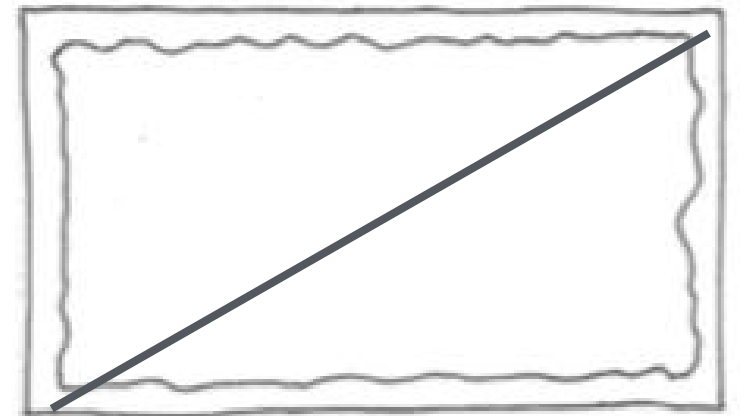
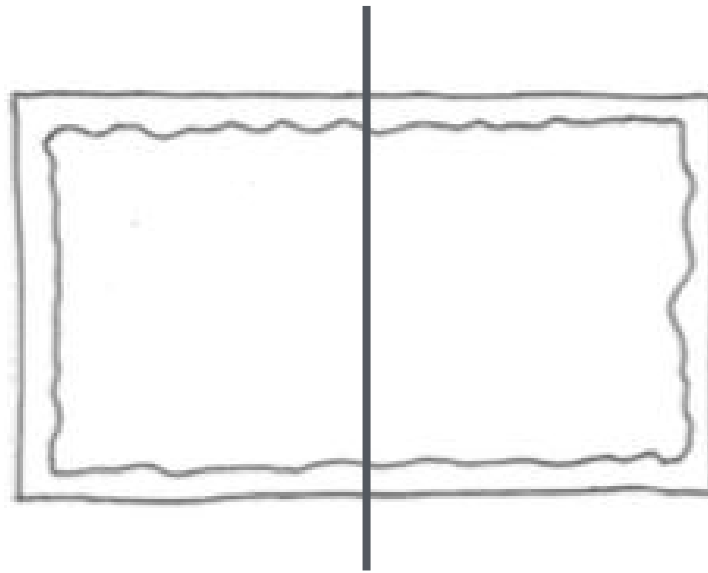
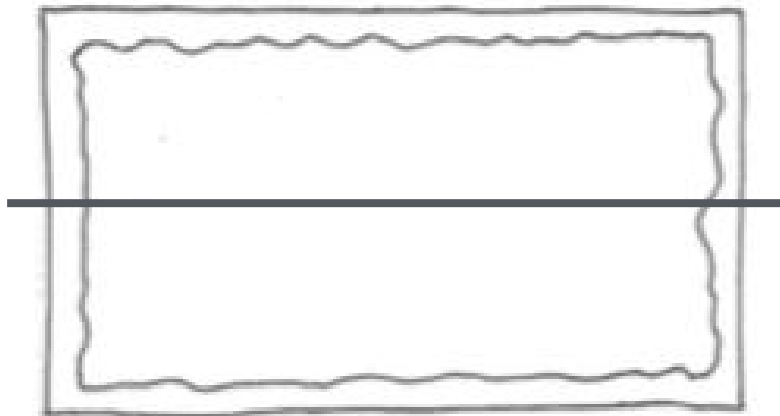


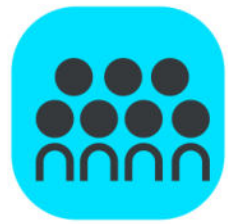


# Concept Development



Will my brother and I get the exact same amount to eat?

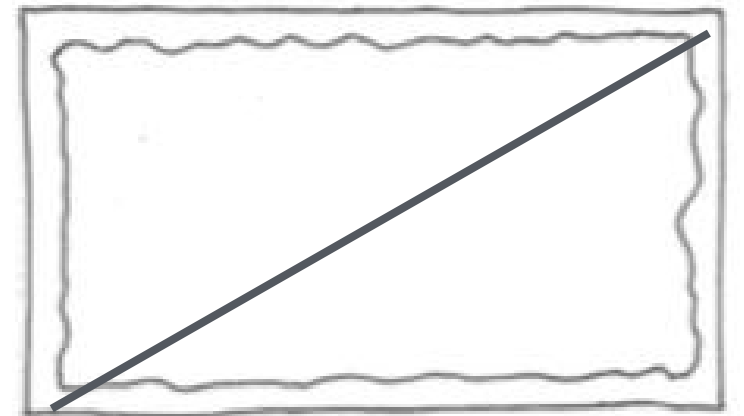
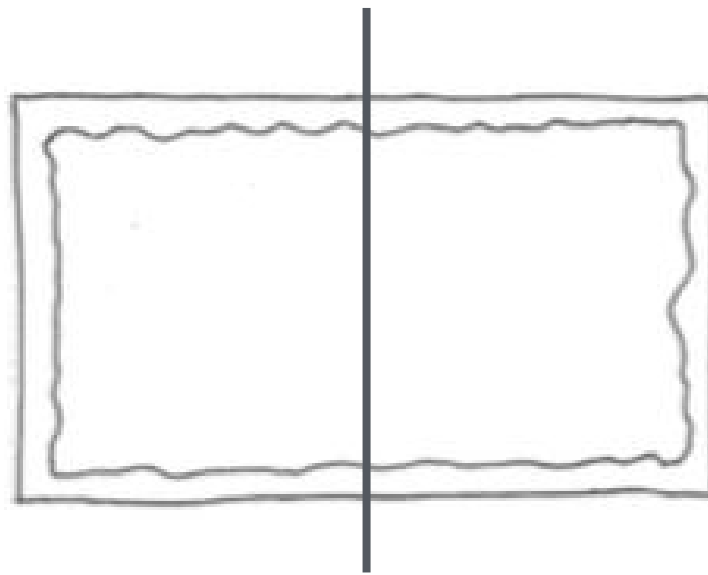
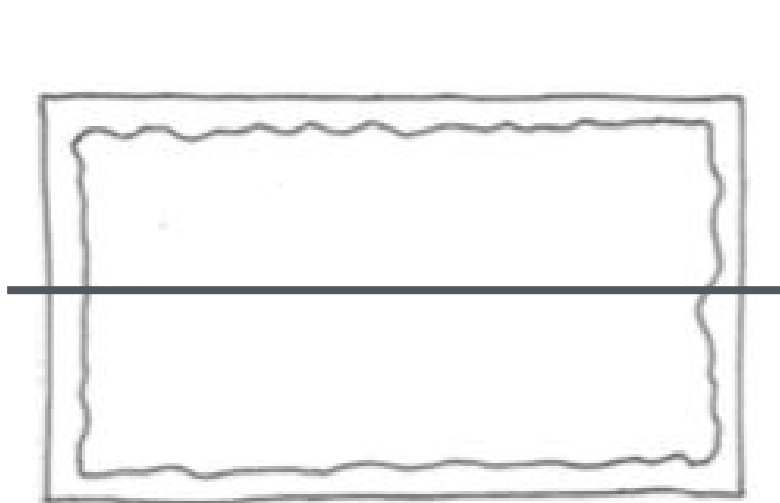


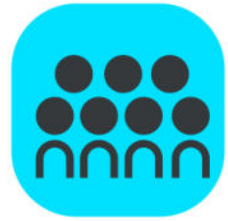


# Concept Development



Yes! Wow, we found three different ways to cut the pizza into halves! Good job!

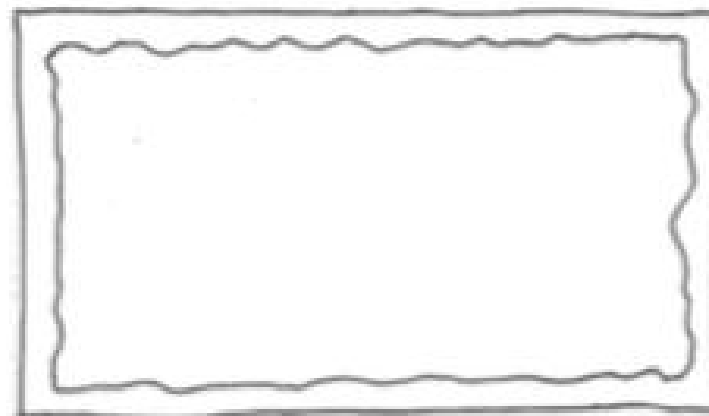


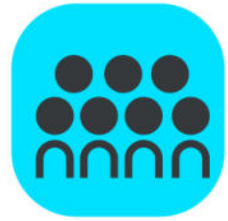


# Concept Development



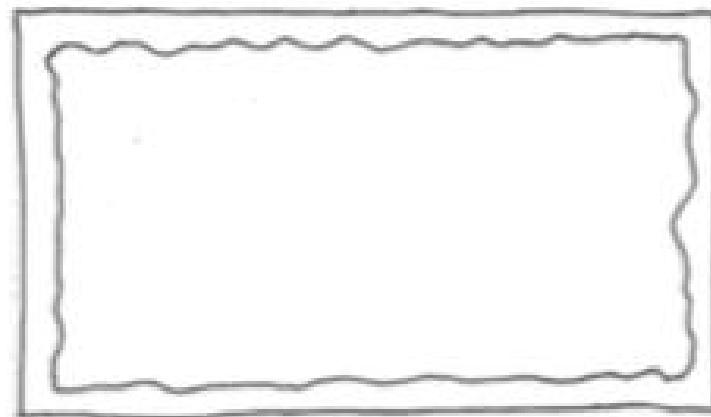
I need your help, though, because sometimes our mom and dad eat with us. How can we share that rectangular pizza equally among all four of us?

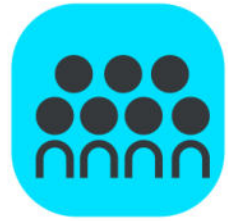




# Concept Development

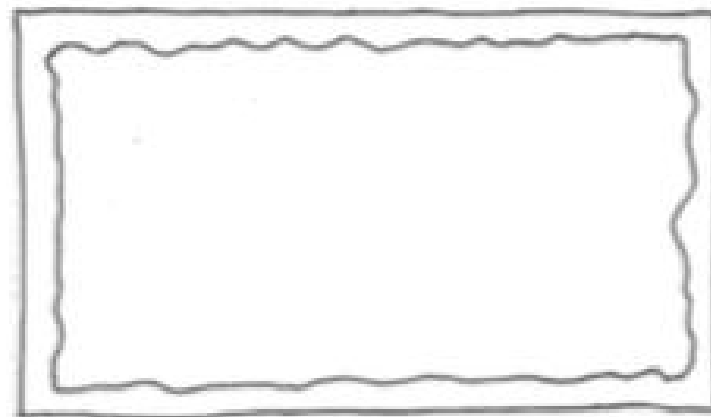
Did you hear these ideas? You need to cut it into four pieces. The pieces need to be the same size. You can just cut it again the other way. That's what my mom does with my sandwiches!

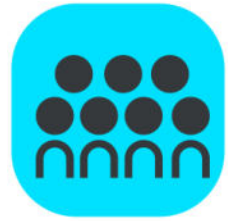




# Concept Development

Draw lines to show how you would cut the rectangular pizza so we would have four equal parts.

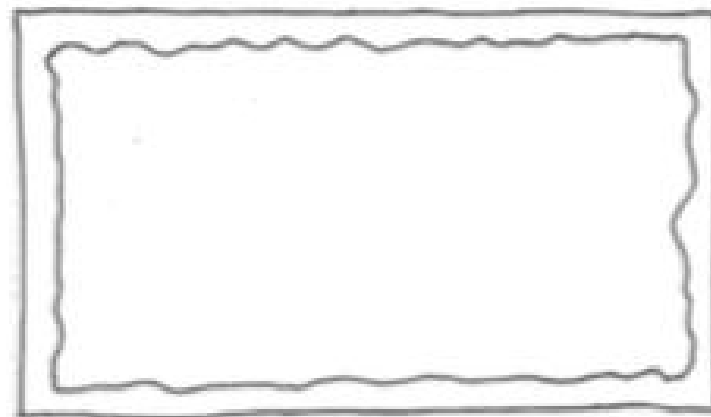


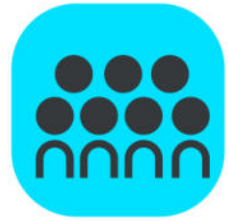


# Concept Development



How did you cut one pizza into four equal parts, or **fourths**?

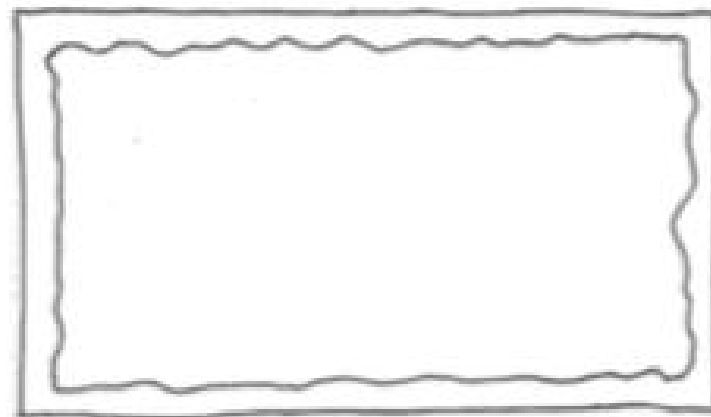


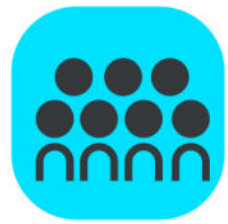


# Concept Development



I heard someone say this: I drew one line up and down (vertically) and the other line across (horizontally). I drew all my lines in the same way. Everyone would get a strip of pizza that is the same size.

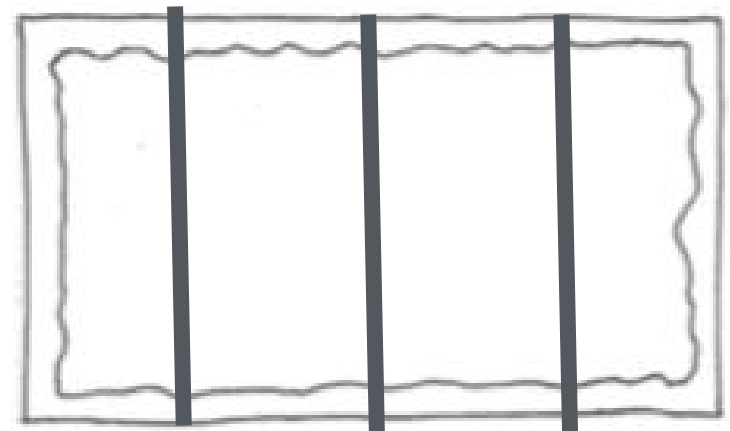
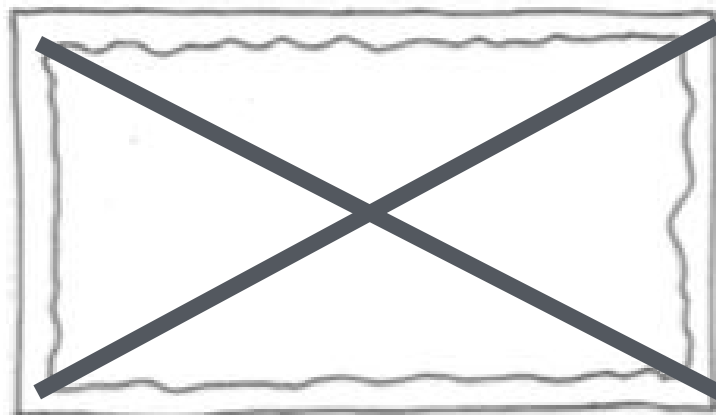
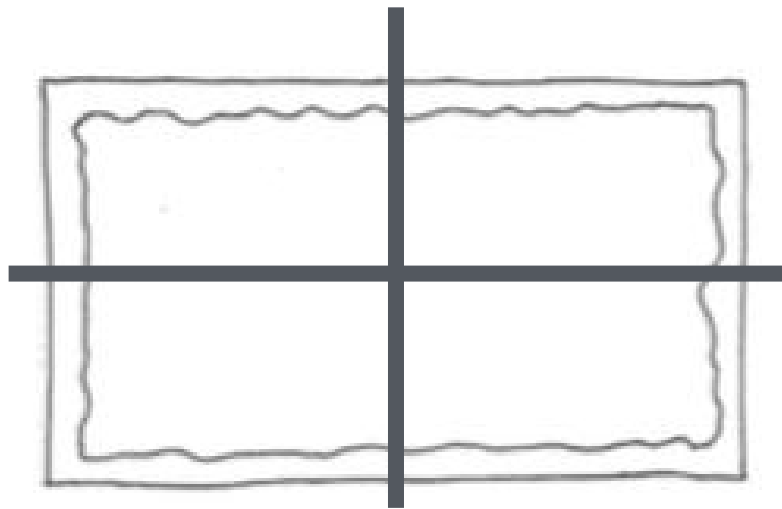


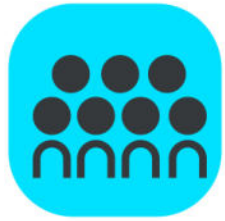


# Concept Development



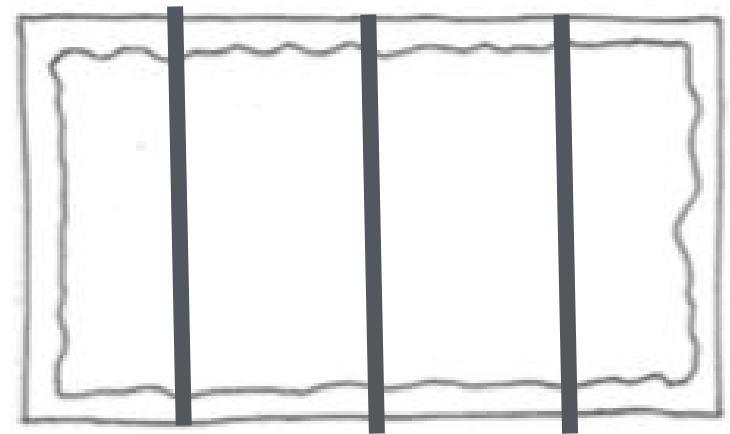
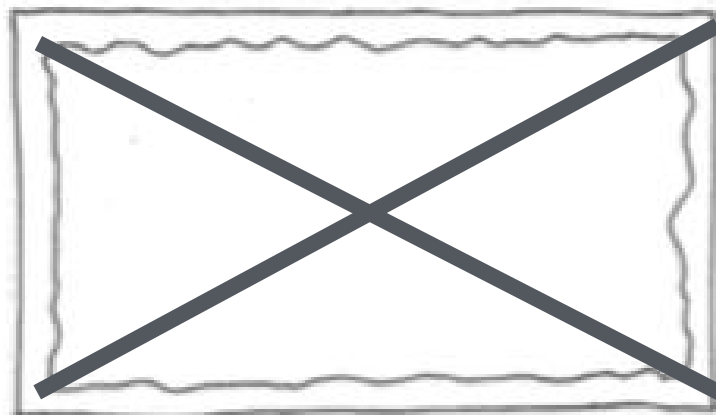
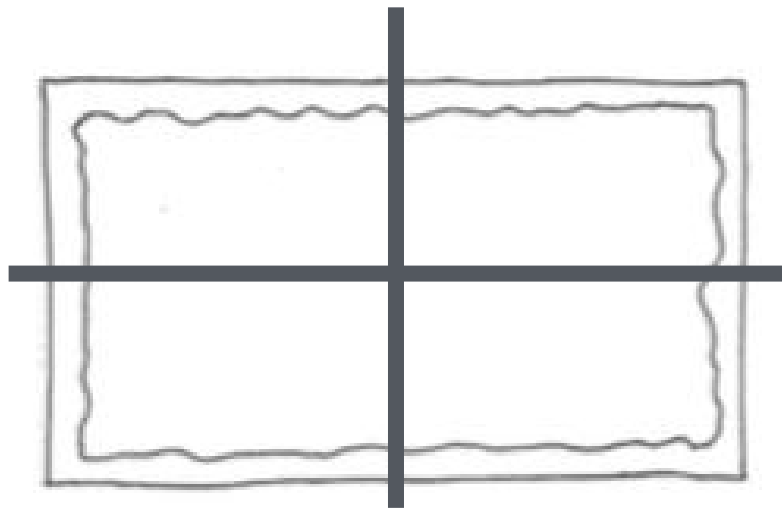
Great job! These are all fourths of, or quarters of, the pizza. It is cut into four pieces that are the same size.

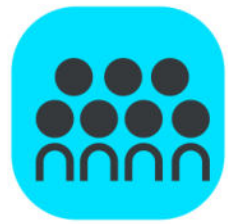




# Concept Development

I drew two lines diagonally through the middle from each corner. That makes four triangles, but they are not all the same shape, so I wonder if the four pieces are equal shares even though they are not the same shape.

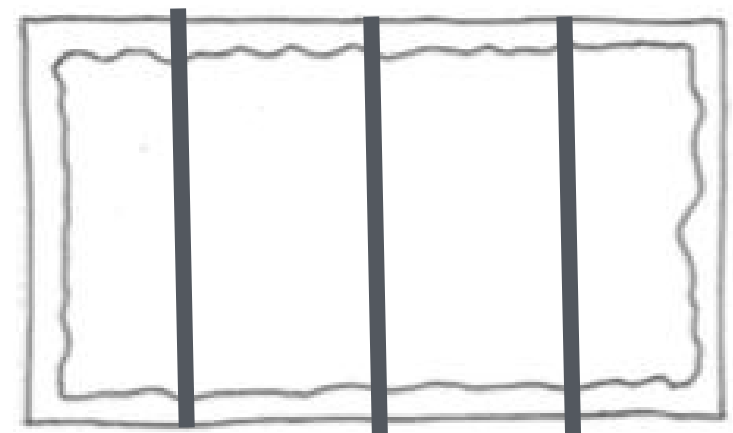
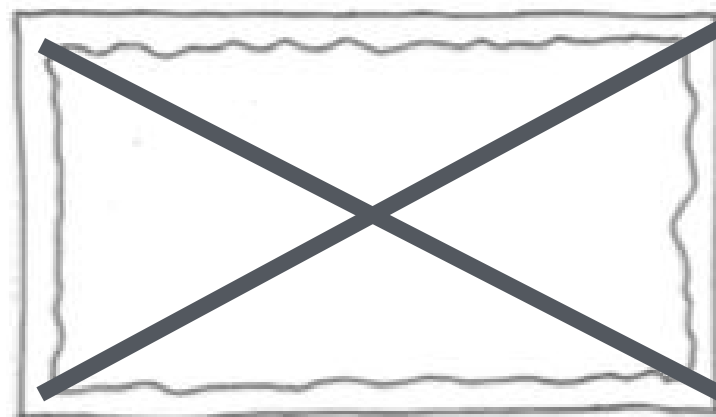
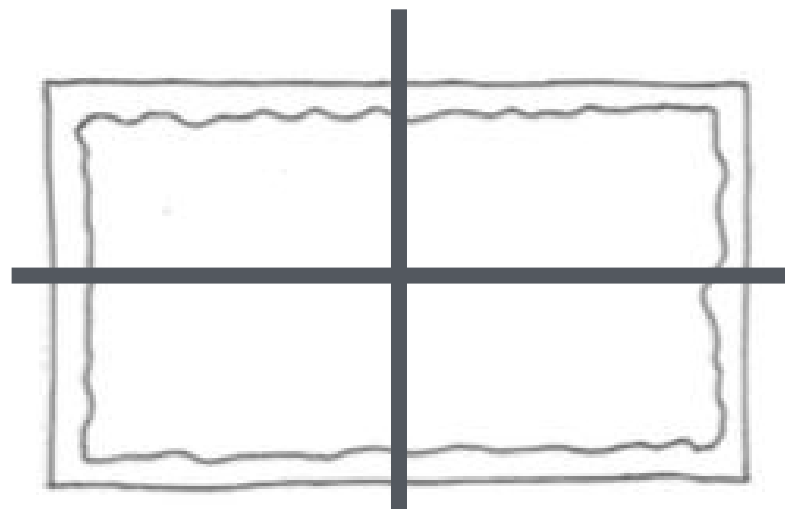


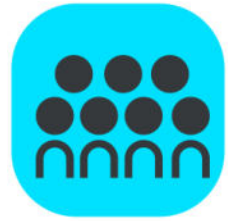


# Concept Development



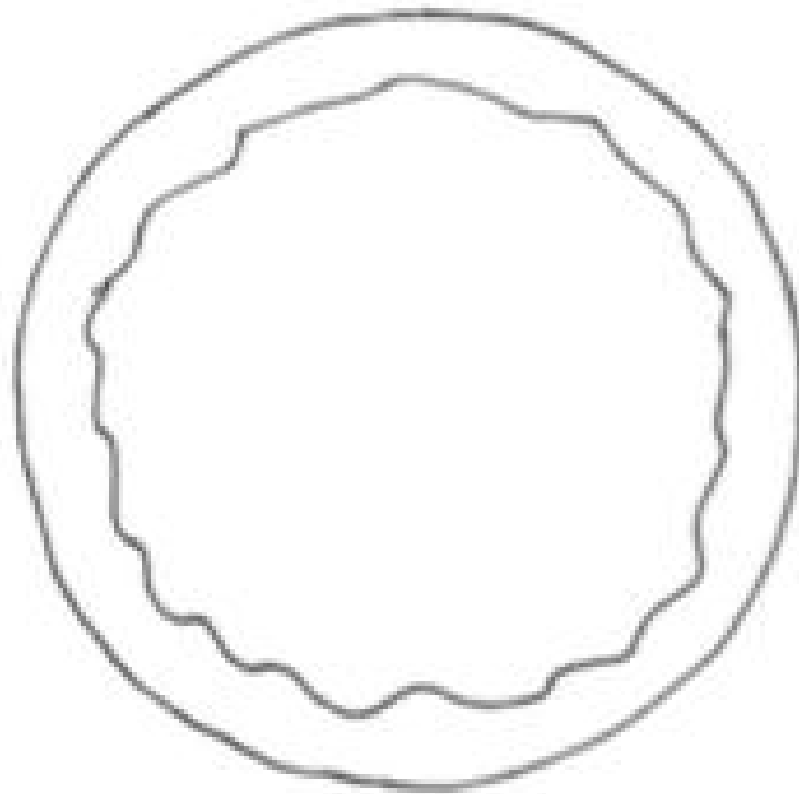
While the diagonal cuts would create equal shares, the shapes created are not exactly the same. These are the most challenging types of equal parts.

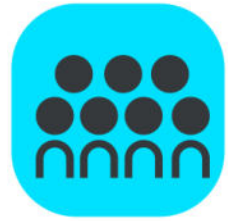




# Concept Development

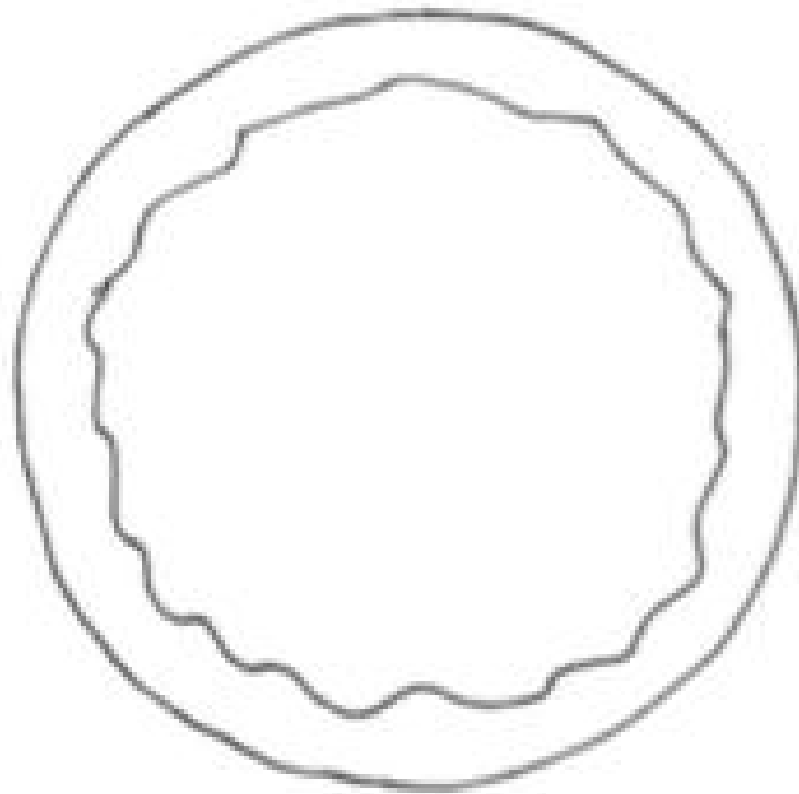
Let's try to make fourths, or quarters, from the circle-shaped pizza.

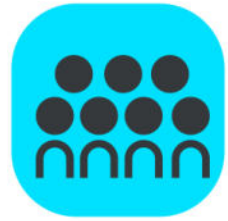




# Concept Development

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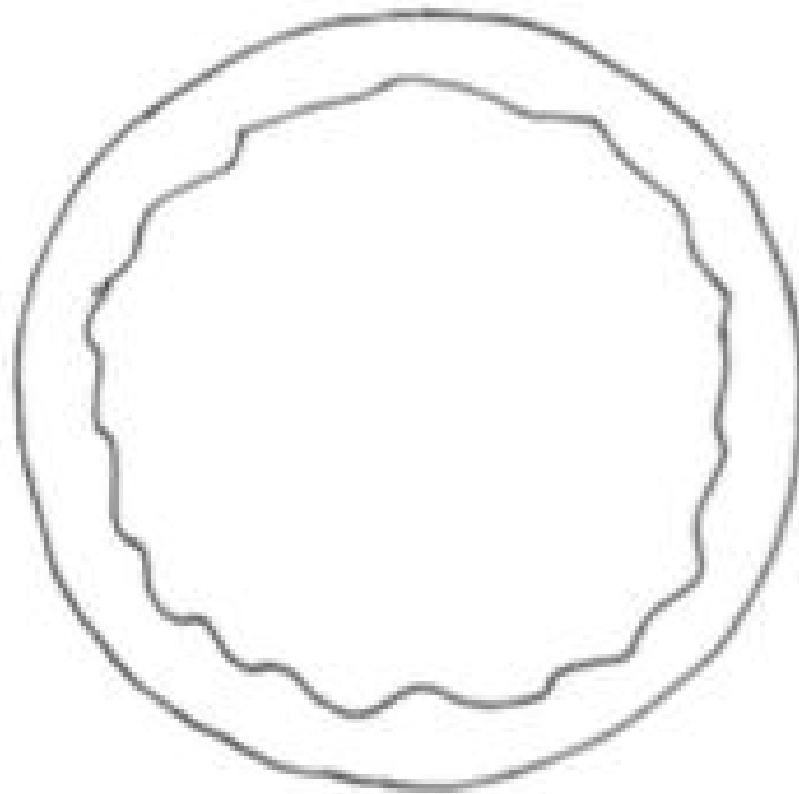


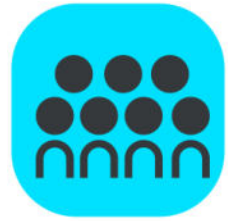


# Concept Development



How did you cut the pizza so that it was cut into four equal parts, which we call fourths, or quarters?

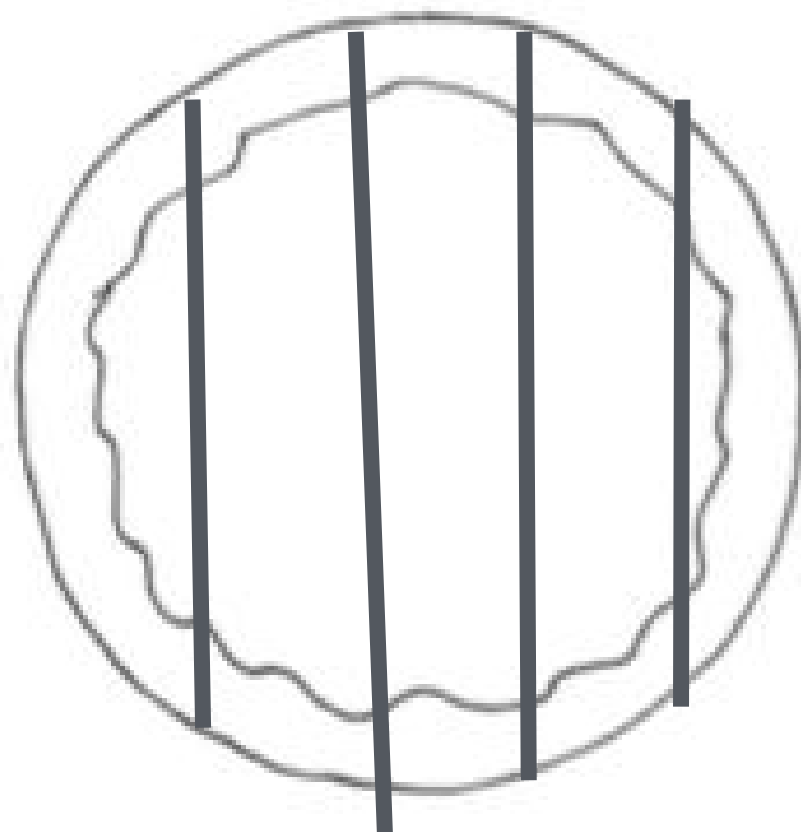


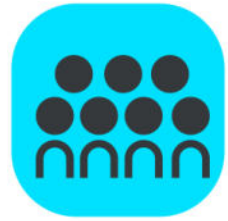


# Concept Development



Were any of these your ideas? I tried to cut it in straight lines, like I did with the rectangle, but the end pieces were too small. I had to cut it through the middle to keep the parts the same size.

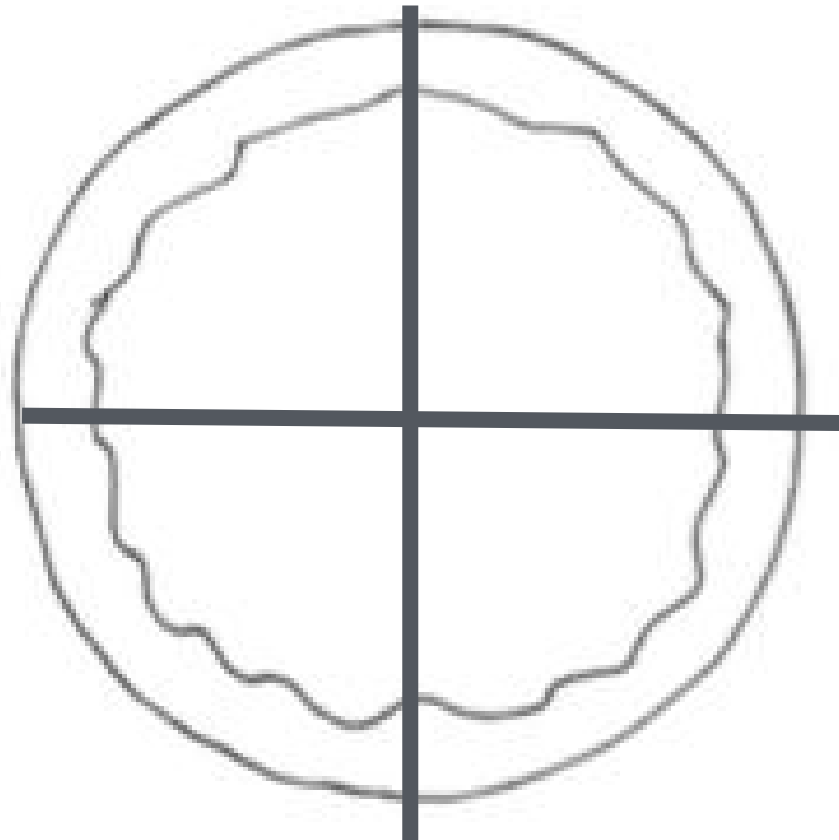


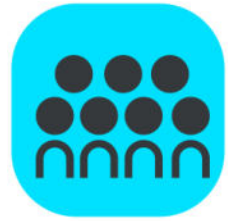


# Concept Development



I had to cut it through the middle to keep the parts the same size.

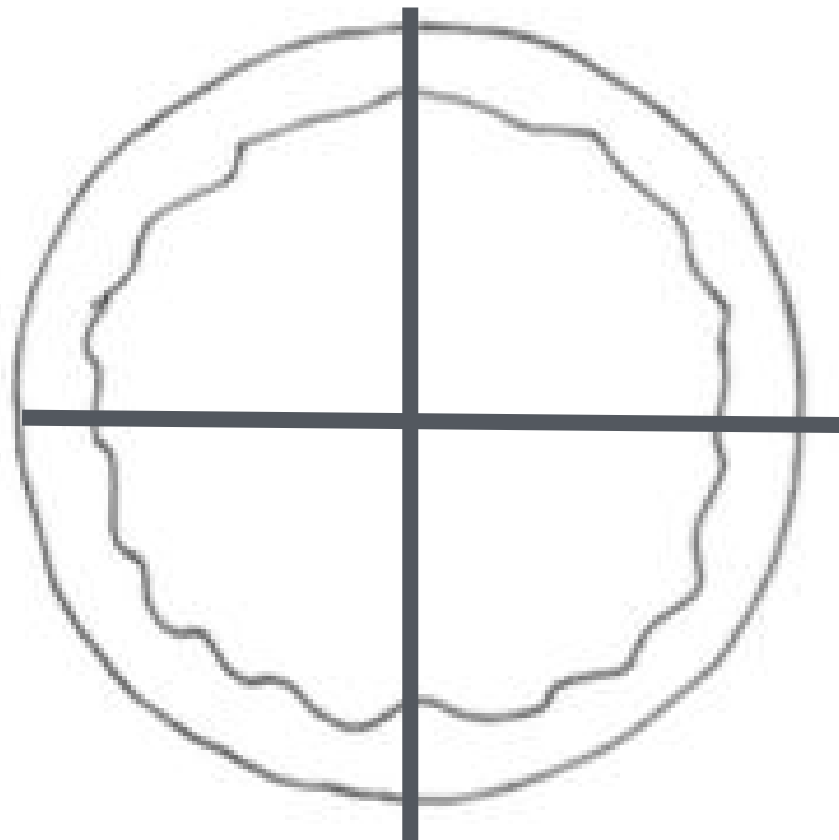


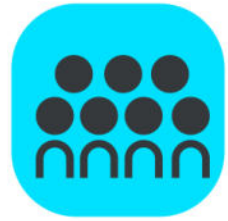


# Concept Development



I had to cut it through the middle to keep the parts the same size.

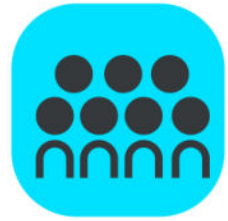




# Concept Development



Good observations. Sometimes it's easier to make equal parts by cutting them in particular ways. Can the circle AND the rectangle both be cut into fourths?

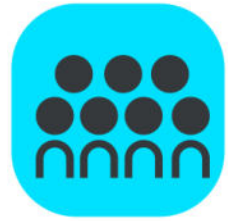


# Concept Development



Yes!

So, if there are four people sharing a pizza,  
whichever shape we're using, we need the whole  
pizza to be cut into...?

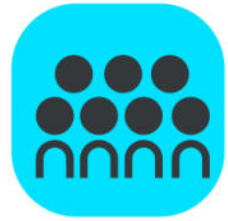


# Concept Development



Yes!

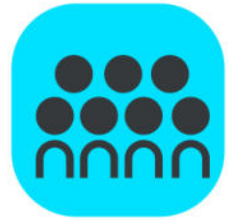
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pizza to be cut into...?



# Concept Development



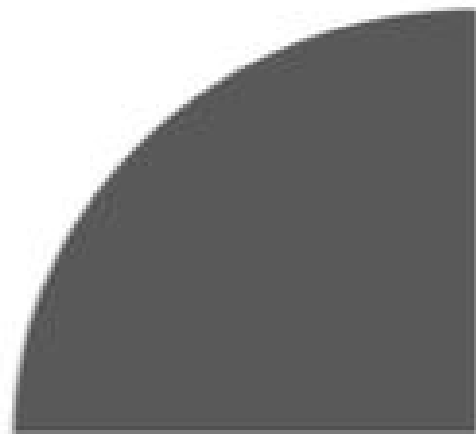
If there are two people sharing, we need the whole pizza to be cut into...?

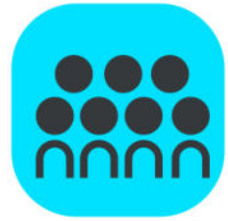


# Concept Development



Look at this shape. This shape is called a quarter-circle. How do you think it got its name?

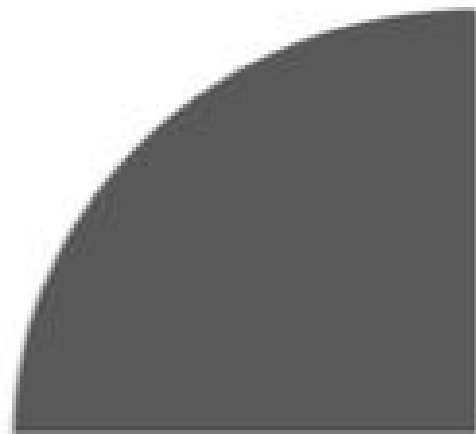


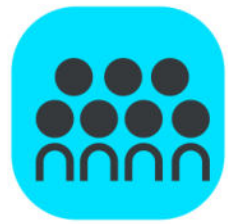


# Concept Development



Look at this shape. This shape is called a quarter-circle. How do you think it got its name?

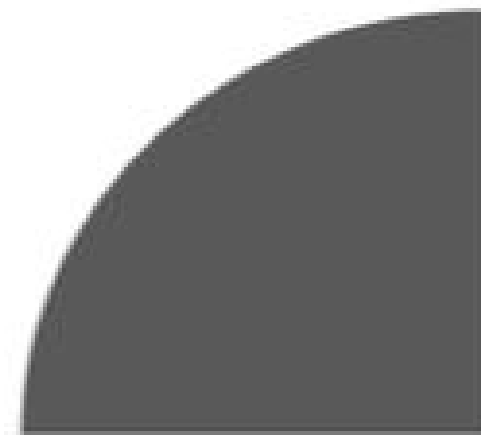


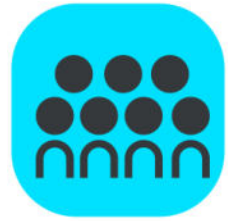


# Concept Development



It comes from a whole circle that got cut into **fourths**, or quarters. It comes from a circle cut into four equal parts. If you put it together with 3 other pieces that are the same size, you would get a whole circle. Four **quarters** make one whole.



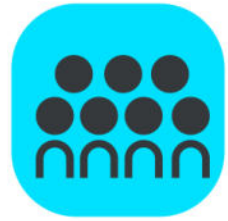


# Concept Development



If this shape is called a **quarter-circle**, what do you think this shape is called?



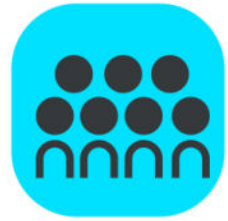


# Concept Development



How did you know it is a **half-circle**!





# Concept Development



It comes from a whole circle that got cut in half. It comes from a circle cut into two parts. If you put it together with another piece that is the same size, you would get a whole circle. Two halves make one whole.



Problem Set

1 2 3 4 5

# Problem Set



A STORY OF UNITS

Lesson 8 Problem Set

1•5

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Are the shapes divided into halves? Write yes or no.

|                 |                 |                 |
|-----------------|-----------------|-----------------|
| a.<br><br>_____ | b.<br><br>_____ | c.<br><br>_____ |
| d.<br><br>_____ | e.<br><br>_____ | f.<br><br>_____ |

2. Are the shapes divided into quarters? Write yes or no.

|                 |                 |                 |
|-----------------|-----------------|-----------------|
| a.<br><br>_____ | b.<br><br>_____ | c.<br><br>_____ |
| d.<br><br>_____ | e.<br><br>_____ | f.<br><br>_____ |

# Problem Set



Problem Set

1 2 3 4 5

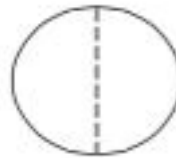
A STORY OF UNITS

Lesson 8 Problem Set

1•5

3. Color half of each shape.

a.



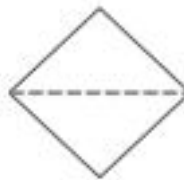
b.



c.



d.



e.



f.



4. Color 1 fourth of each shape.

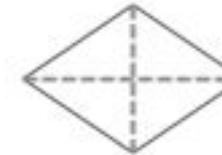
a.



b.



c.



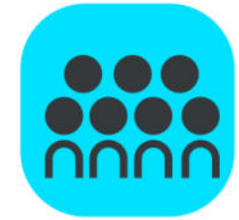
d.



e.



# Debrief

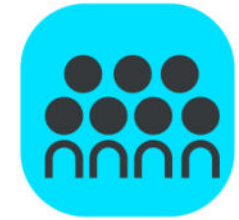


What word did we learn today to help us name the pieces of a shape cut into two equal parts?



How much of the pizza is one part?

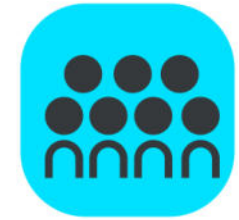
# Debrief



What two different way scan we name the parts of a shape that is cut into four equal parts?



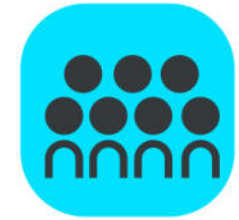
# Debrief



How much of the pizza is one part?



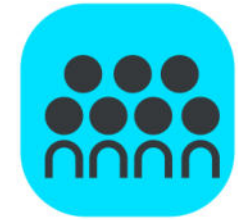
# Debrief



Look at Problem 1. Find an example of a shape that is not divided into halves. How did you decide that the parts were not equal?



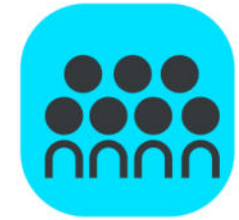
# Debrief



Look at Problem 2. Find an example of a shape that is not divided into quarters. How did you decide it did not have four equal parts?



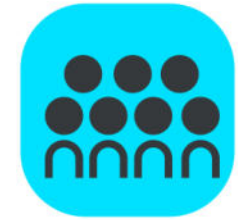
# Debrief



Let's look at the shapes we made with our tangram pieces during our last lesson. Can we name the size of the equal pieces in each of our shapes?



# Debrief



Someone told me that when you cut rectangles into quarters, you always get smaller rectangles. Is that true? Look over your Problem Set to support your thinking with examples.



# Exit Ticket



A STORY OF UNITS

Lesson 8 Exit Ticket

1•5

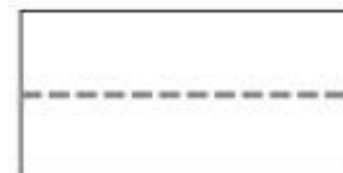
Name \_\_\_\_\_

Date \_\_\_\_\_

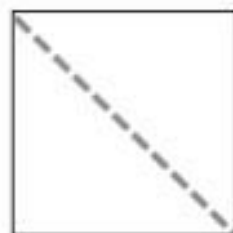
Color 1 fourth of this square.



Color half of this rectangle.



Color half of this square.



Color a quarter of this circle.

