

MAPPS Childcare grades K-1

MAPPS Session 1

Introduction to Fractions

Materials Needed:

Snacks

Small soft ball

Tangram Sheets

Tangram Pieces

Chart Paper or White Board

Freaky Fractions (Pg 1 only)

Markers

Crayons

Notecards

Various Children's Books

6:00-6:15	Set up classroom. Place tangram sheets and pieces, notecards, and crayons on the tables. Write your name on the white board or chart paper. Leave it up for the evening.
6:15-6:30	As the students enter have them make name tags to display and then introduce themselves to one another. Make a nametag for yourself with the students and display that for them to see for the evening.
6:30-6:45	Initiate a conversation with the students about fractions. Guide the students to the concept of "part over whole." Explain that fractions are used in day to day activities and give a few examples. Have the students give some of their own examples. Be encouraging to each participant's contribution, and write them on the board/paper.
6:45-7:15	Introduce the concept of a tangram and ask the students if they've ever seen them/tried them. If one has, ask him/her if they would like to try to explain how to complete one. Explain what they need to do to try to complete one of the puzzles and give them time to do it. Encourage math language. When a student solves a puzzle ask them how they completed it. When you ask the students questions like that they reflect on their strategy and are able to share ideas with their peers. Encourage students to try some of the different ones if they are having troubles, and

	give hints on the white board. (These will be difficult so it helps to provide two hints to start off, and then two hints each time you provide them).
7:15-7:30	Allow the students a bathroom break followed by a snack. During snack, read a few books and have the students sit on the floor.
7:30-8:00	Introduce counting by fractions. Have them sit in a circle on the floor and hand them the ball. Explain that you want them to count and hand the ball to the person next to them as they do so. Describe how they are counting by “whole” numbers (to connect to the previous conversation about “part over whole”. After each student goes at least twice tell them how to count by halves again showing them to hand the ball off to the person next to them as they do so. Continue counting by halves until each student goes three or four times. Next try counting by thirds, and then up to fourths using the same method. Discuss what it means when counting by fractions. Ask students their interpretations, and use the white board to draw pictures to aid in explanations.
8:00-8:20	Introduce Freaky Fractions worksheet. Allow the students to color in the problems on their own for a few minutes and then allow them to compare their answers and discuss. Ask students if they want to explain their answers to the class and invite them to come to the front and use the white board.
8:20-8:30	Help the students clean up the area. Gather any papers or folders they may be taking with them. Initiate a conversation about the activities they did. This will create a class discussion resulting in a reflection. Before you send the students home remind them to practice fractions and talk to their families about fractions.

What if the material is not challenging enough or too challenging.

If the material is not appropriate for certain students, encourage them to work together. If a student isn't challenged enough allow them to assist others and help explain the materials so they can all work together. If a student isn't understanding the material, work with smaller numbers and more examples of fractions that they might recognize in their daily routines to assist in a better understanding.

What if the students are bored or have an elevated level of energy

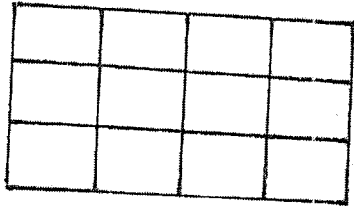
If the students are acting bored or have an elevated level of energy change the pace. Read a couple books, move the next activity to the floor (if possible) or different areas of the room that would require students to get on their feet. Also, ask the students different questions that are relevant to fractions. Have them write their ideas on the white board. Encourage math discussions.

FREAKY FRACTIONS

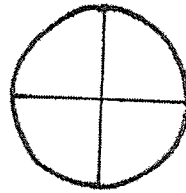


Directions:

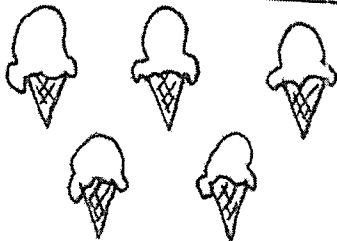
Color the parts or objects to illustrate the fractions.



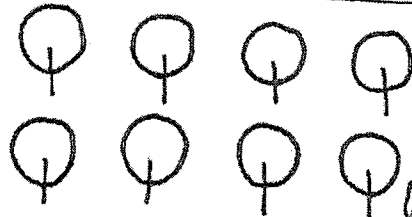
$$\frac{6}{12}$$



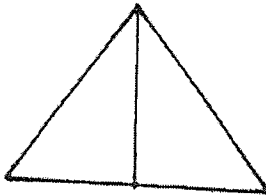
$$\frac{3}{4}$$



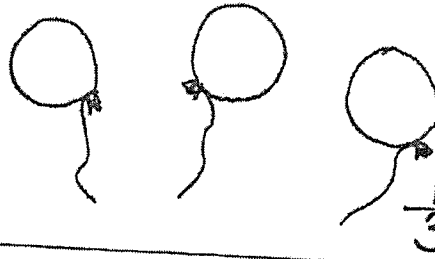
$$\frac{3}{5}$$



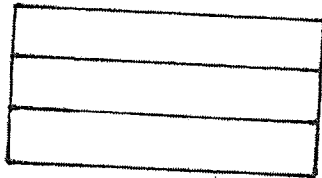
$$\frac{6}{8}$$



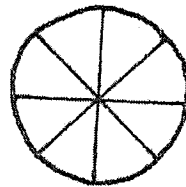
$$\frac{1}{2}$$



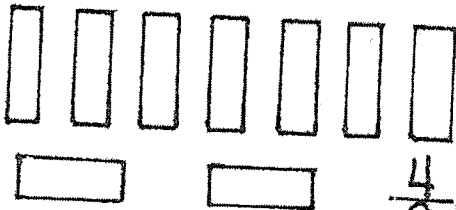
$$\frac{1}{3}$$



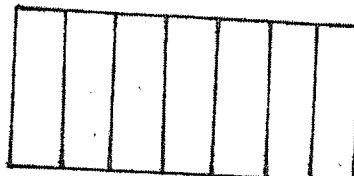
$$\frac{2}{3}$$



$$\frac{5}{8}$$



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



$$\frac{3}{7}$$

MAPPS Childcare grades K-1

MAPPS Session 2

Developing Fraction Concepts I

Materials Needed:

Snacks

Small soft ball

Color Tiles

BLM 12 Worksheet

Chart Paper or White Board

Markers

Crayons

Notecards

Various Children's Books

6:00-6:15	Set up classroom. Place worksheets, notecards, and crayons on the tables. Write your name on the white board or chart paper. Leave it up for the evening.
6:15-6:30	As the students enter have them make name tags to display and then introduce themselves to one another. Make a nametag for yourself with the students and display that for them to see for the evening.
6:30-6:45	Review concepts covered the previous week. Ask students what they remember from the previous week as to what a fraction is. Go through the room asking each student their definition of a fraction, with various questions leading them to the phrase "part over whole." Ask if they had any experiences with fractions over the last week that they could share. Be encouraging to each participant's contribution, and write them on the board/paper.
6:45-7:15	Introduce the concept of the color tiles and BLM 12 worksheet. Hand out tiles to the students and give them the directions of what you will be doing. Do the first couple with the class encouraging participation from the students. Ask them if they would like to lead in explaining the process they would use and work through the worksheet in groups. Encourage math language. When everyone has completed it ask the students to each take turns sharing their answers along with the strategy to their peers. Have the students stand and walk to each of the different tables so the student explaining their process can reference their completed color tile

	combination.
7:15-7:30	Allow the students a bathroom break followed by a snack. During snack, read a few books and have the students sit on the floor.
7:30-8:00	Reintroduce counting by fractions. Have them sit in a circle on the floor and hand them the ball. Ask a student to explain the process of counting by fractions with their peers. Again start by counting by “whole” numbers (again connecting to “part over whole”. After each student goes at least twice tell them how to count by halves again showing them to hand the ball off to the person next to them as they do so. Continue counting by halves until each student goes three or four times. Next try counting by thirds, and then up to fourths using the same method. Discuss what it means when counting by fractions. Ask students their interpretations, and use the white board to draw pictures to aid in explanations.
8:00-8:20	Ask the students to explain what they’ve learned about fractions over the last week. Again, encourage math language and aid them in their explanation. Have them present at the white board or use their color tiles if they prefer. Allow group discussions and try to keep it focused on math.
8:20-8:30	Help the students clean up the area. Gather any papers or folders they may be taking with them. Initiate a conversation about the activities they did. This will create a class discussion resulting in a reflection. Before you send the students home remind them to practice fractions and talk to their families about fractions.

What if the material is not challenging enough or too challenging.

If the material is not appropriate for certain students, encourage them to work together. If a student isn’t challenged enough allow them to assist others and help explain the materials so they can all work together. Also, increase the values of numbers as needed to allow more challenging material. If a student isn’t understanding the material, work with smaller numbers and more examples of fractions that they might recognize in their daily routines to assist in a better understanding. Encourage group discussions to help students understand by the different descriptions and examples from their peers.

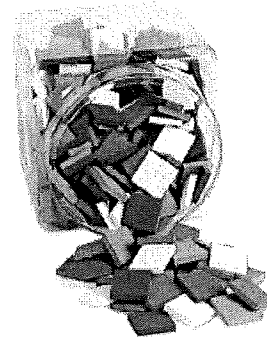
What if the students are bored or have an elevated level of energy

If the students are acting bored or have an elevated level of energy change the pace. Read a couple books, move the next activity to the floor (if possible) or different areas of the room that would require students to get on their feet. Also, ask the students different questions that are relevant to fractions. Have them write their ideas on the white board. Have students focus on color tiles and make up their own fractions with them. Encourage math discussions.

Color Tile Mysteries

Find a collection of color tiles to fit each description below.

The symbol " $\frac{?}{?}$ " means "the mystery amount."



- | | | | | |
|----|----------------------|----------------------|----------------------|---------------------|
| 1. | $\frac{3}{8}$ red | $\frac{1}{4}$ blue | $\frac{?}{?}$ green | |
| 2. | $\frac{1}{12}$ green | $\frac{5}{6}$ yellow | $\frac{?}{?}$ blue | |
| 3. | $\frac{3}{16}$ blue | $\frac{1}{4}$ green | $\frac{1}{8}$ yellow | $\frac{?}{?}$ red |
| 4. | $\frac{1}{6}$ green | $\frac{1}{3}$ red | $\frac{?}{?}$ blue | |
| 5. | $\frac{1}{9}$ yellow | $\frac{1}{18}$ blue | $\frac{1}{2}$ red | $\frac{?}{?}$ green |
| 6. | $\frac{1}{4}$ yellow | $\frac{2}{3}$ blue | $\frac{?}{?}$ green | |
| 7. | $\frac{1}{5}$ red | $\frac{1}{3}$ blue | $\frac{2}{5}$ yellow | $\frac{?}{?}$ green |
| 8. | $\frac{1}{4}$ green | $\frac{1}{3}$ yellow | $\frac{1}{6}$ red | $\frac{?}{?}$ blue |

MAPPS Childcare grades K-1

MAPPS Session 3

Developing Fraction Concepts II

Materials Needed:

Snacks

Small soft ball

Fraction Dice Worksheet

Dice (at least two)

Color Tiles

BLM 16 Worksheet

Chart Paper or White Board

Markers

Crayons

Notecards

Various Children's Books

6:00-6:15	Set up classroom. Place worksheets, notecards, and crayons on the tables. Write your name on the white board or chart paper. Leave it up for the evening. Write on white board in large print, "What is a fraction?"
6:15-6:30	As the students enter have them make name tags to display and then introduce themselves to one another (If there are new students). Make a nametag for yourself with the students and display that for them to see for the evening. Have students go up to the board and write their answer to your question and pass the marker to the next person once they've finished with their description.
6:30-6:45	Review concepts covered in prior weeks. Ask students what they remember from the previous weeks and go over the answers on the board. Have the students describe their answers. Encourage use of color tiles and ask students to use them with their explanation. If it's not already on the board, remind them of the phrase "part over whole." Ask if they had any experiences with fractions over the last week that they could share. Be encouraging to each participant's contribution, and write them on the board/paper.

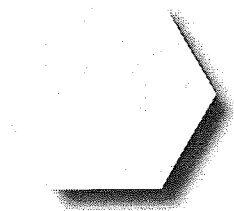
6:45-7:15	Introduce the concept of BLM 16 worksheet. Do the first couple with the class encouraging participation from the students. Break into small groups or work in one big group. Ask if a volunteer would like to lead in explaining the process they would use and work through the worksheet in groups. Encourage math language. When everyone has completed it ask the students to each take turns sharing their answers along with the strategy to their peers. Have the students write their answers out on the white board along with a picture to aid in the description.
7:15-7:30	Allow the students a bathroom break followed by a snack. During snack, read a few books and have the students sit on the floor.
7:30-7:40	Reintroduce counting by fractions. Have them sit in a circle on the floor and hand them the ball. Ask if they remember how to play and have a student to explain the process of counting by fractions with their peers. Again start by counting by "whole" numbers (again connecting to "part over whole". After each student goes at least twice tell them how to count by halves again showing them to hand the ball off to the person next to them as they do so. Continue counting by halves until each student goes three or four times. Next try counting by thirds, and then up to fourths using the same method. Discuss what it means when counting by fractions. Ask students their interpretations, and use the white board to draw pictures to aid in explanations.
7:40-8:00	Introduce Fraction Dice. Explain the process and work through the sheet together as a group. Encourage group discussions and keep the focus on math. Allow for students to help their peers when some of them are having troubles.
8:00-8:20	Ask the students to explain what they've learned about fractions over the last week. Again, encourage math language and aid them in their explanation. Have them present at the white board or use their color tiles if they prefer. Allow group discussions and try to keep it focused on math.
8:20-8:30	Help the students clean up the area. Gather any papers or folders they may be taking with them. Initiate a conversation about the activities they did. This will create a class discussion resulting in a reflection. Before you send the students home remind them to practice fractions and talk to their families about fractions.

What if the material is not challenging enough or too challenging.

*If the material is not appropriate for certain students, encourage them to work together. If a student isn't challenged enough allow them to assist others and help explain the materials so they can all work together. Also, increase the values of numbers as needed to allow more challenging material. If a student isn't understanding the material, work with smaller numbers and more examples of fractions that they might recognize in their daily routines to assist in a better understanding. Encourage group discussions to help students understand by the different descriptions and examples from their peers.***What if the students are bored or have an elevated level of energy**

If the students are acting bored or have an elevated level of energy change the pace. Read a couple books, move the next activity to the floor (if possible) or different areas of the room that would require students to get on their feet. Also, ask the students different questions that are relevant to fractions. Have them write their ideas on the white board. Use color tiles as needed. Encourage math discussions.

Sharing Cookies



Let the yellow hexagon stand for the unit (a cookie). Each time cookies are shared, they must be shared equally. Act out each situation described below. Look for patterns or generalizations that come from this experience.

How much does each person get if:

1. One cookie is shared with three people.
2. One cookie is shared with six people.
3. Three cookies are shared with two people.
4. Four cookies are shared with six people.
5. Two cookies are shared with four people.
6. Five cookies are shared with three people.
7. Seven cookies are shared with six people.
8. Eight cookies are shared with three people.
9. Some people shared some cookies. Each person got $1\frac{2}{3}$ cookies. How many cookies were shared and how many people shared them? Find more than one way!

MAPPS Childcare grades K-1

MAPPS Session 4

Developing Fraction Concepts III

Materials Needed:

Snacks

Fraction Memory

Fraction Fish

Color Tiles

Chart Paper or White Board

Markers

Crayons

Notecards

Various Children's Books

6:00-6:15	Set up classroom. Place worksheets, notecards, and crayons on the tables. Write your name on the white board or chart paper. Leave it up for the evening. Write on white board in large print, "What is a fraction?"
6:15-6:30	As the students enter have them make name tags to display and then introduce themselves to one another (if there are new students). Make a nametag for yourself with the students and display that for them to see for the evening. Have students go up to the board and write their answer to your question and pass the marker to the next person once they've finished with their description.
6:30-6:45	Review concepts covered in prior weeks. Ask students what they remember from the previous weeks and go over the answers on the board. Have the students describe their answers. Encourage use of color tiles (if they prefer) and ask students to use them with their explanation. If it's not already on the board, remind them of the phrase "part over whole." Ask if they had any experiences with fractions over the last week that they could share. Be encouraging to each participant's contribution, and write them on the board/paper.
6:45-7:15	Introduce the concept of Fraction Memory. Do the first couple with the class encouraging participation from the students. Break into small groups of two. Encourage math language. When everyone has completed the game have them switch partners and go again. Have the students switch partners for a third time and

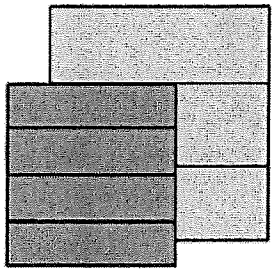
	once finished have them share their thoughts on the game. (Likes/Dislikes). Ask if the game helped with their understanding of fractions.
7:15-7:30	Allow the students a bathroom break followed by a snack. During snack, read a few books and have the students sit on the floor.
7:30-8:00	Introduce Fraction Fish. Have them sit in a circle on the floor and explain the process of the game. Ask if there are any students who don't understand and then ask a students if someone would like to explain it to their peers. Break into groups of two or more and execute the game. Walk from group to group to aid if needed. Encourage math discussions. If The game goes quickly, mix up groups and play a second round. When finished, discuss what strategies were used to recognize fractions as students were asking for them. Ask students to vote on who likes visual pie diagrams vs the numbers written as fractions. Use the white board and post their vote.
8:00-8:20	Ask the students to explain what they've learned about fractions over the last few weeks. Again, encourage math language and aid them in their explanation. Have them present at the white board and give examples of any of the activities completed if desired. Allow group discussions and try to keep it focused on math.
8:20-8:30	Help the students clean up the area. Gather any papers or folders they may be taking with them. Initiate a conversation about the activities they did. This will create a class discussion resulting in a reflection. Before you send the students home remind them to practice fractions and talk to their families about fractions.

What if the material is not challenging enough or too challenging.

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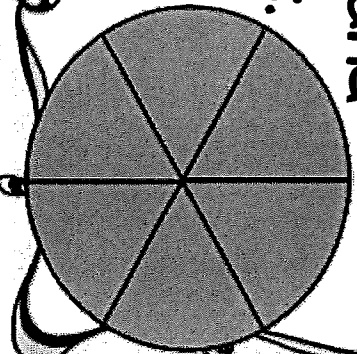
What if the students are bored or have an elevated level of energy

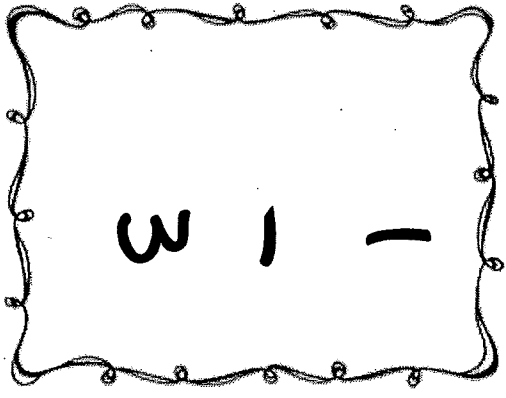
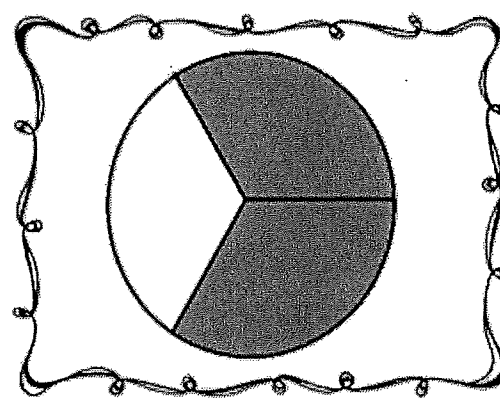
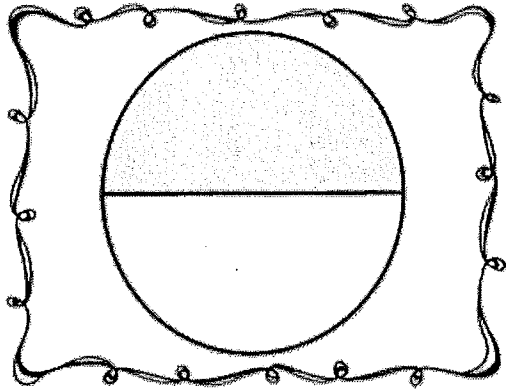
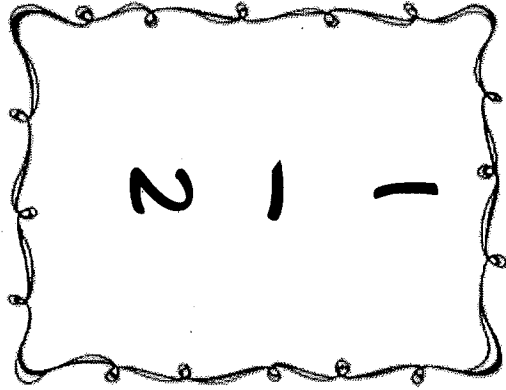
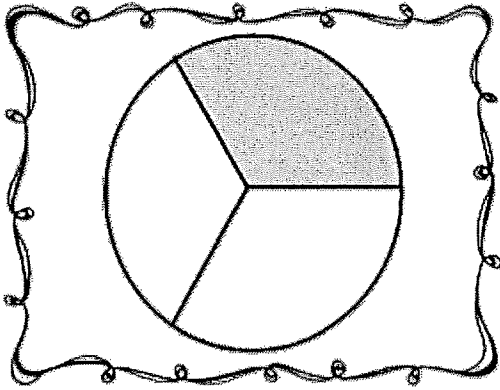
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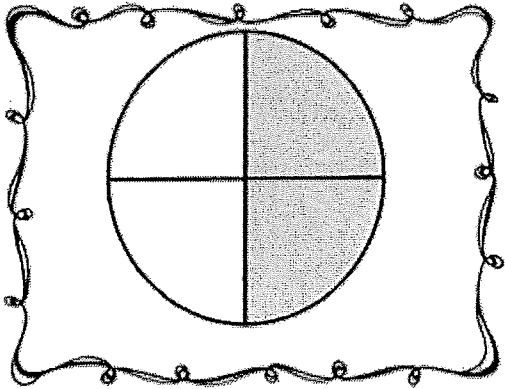


Fraction Memory Match

Turn cards face
down. Match the
fractions and
pictures.

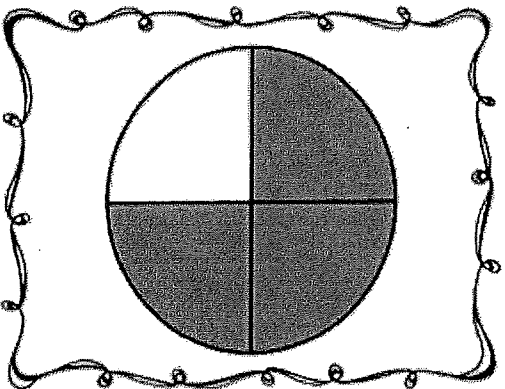
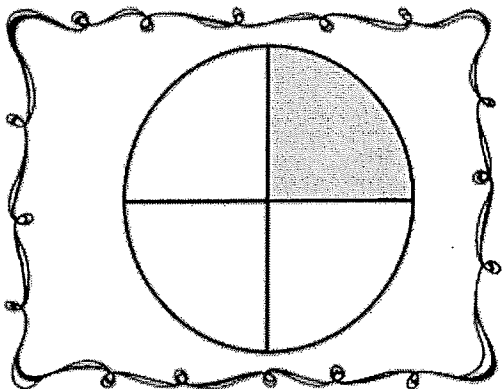




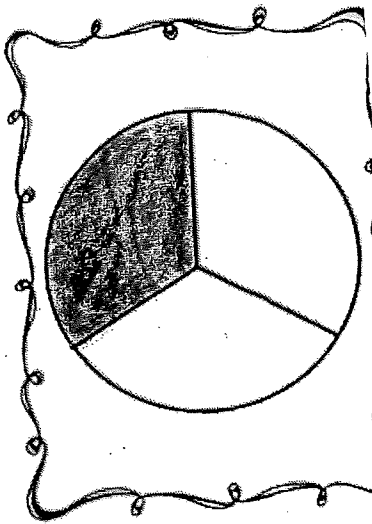


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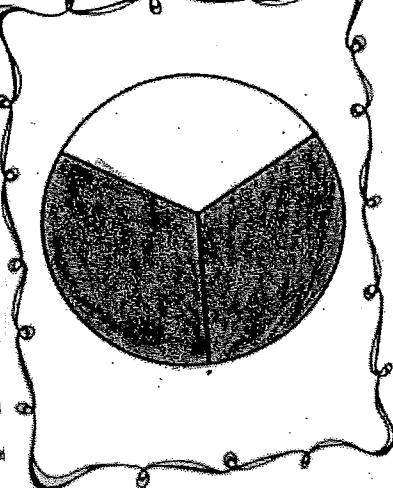
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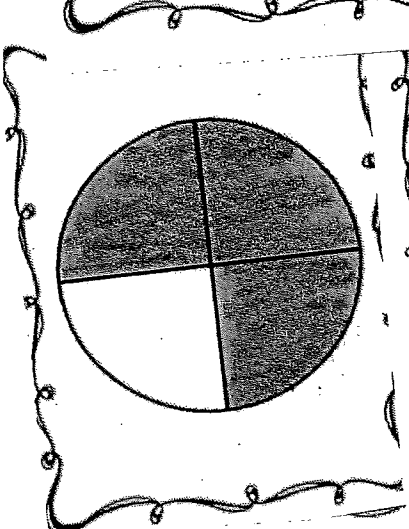
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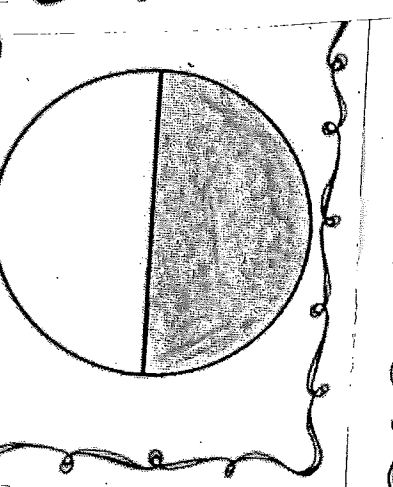
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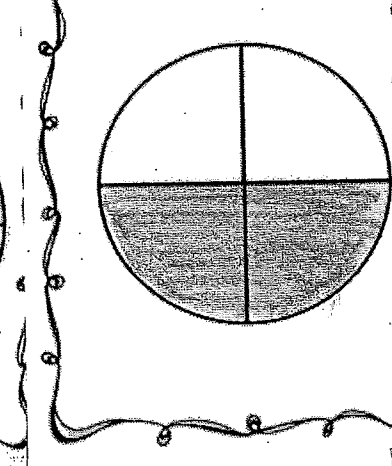
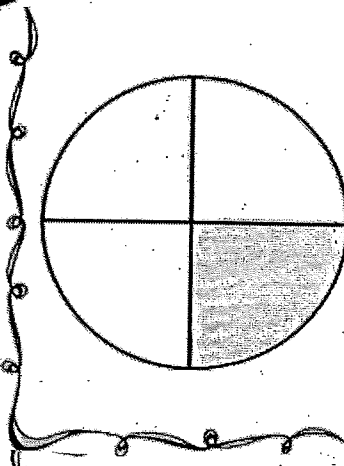
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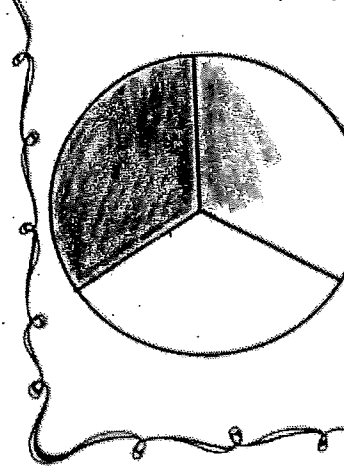


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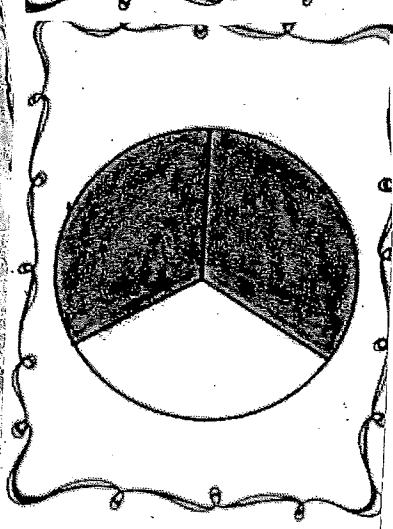


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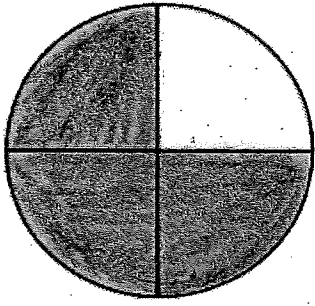
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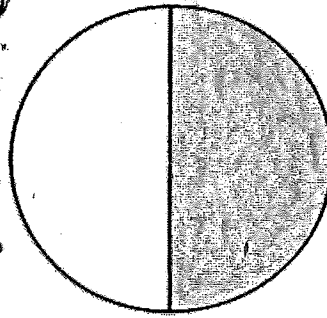
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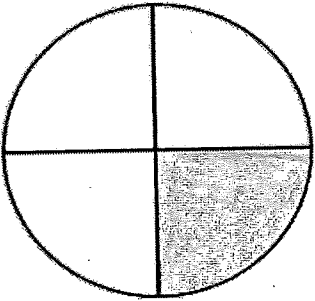
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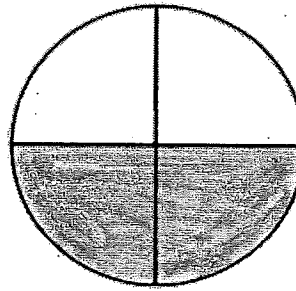
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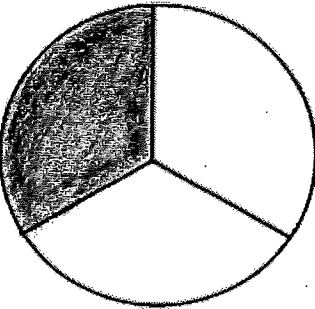
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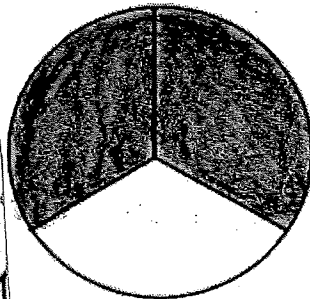
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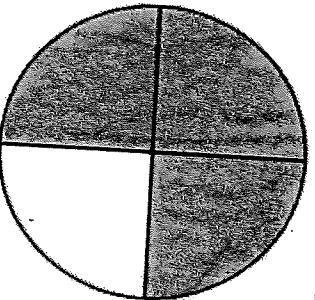
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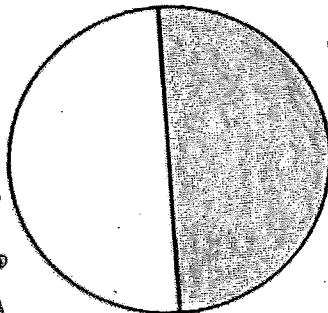
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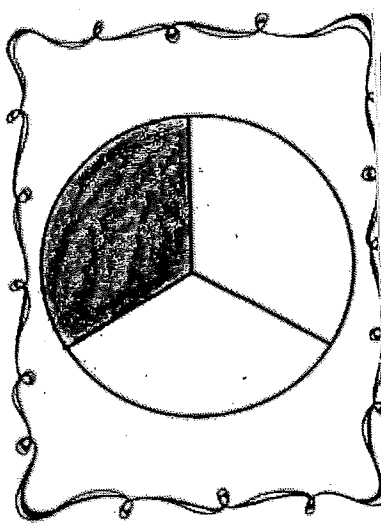
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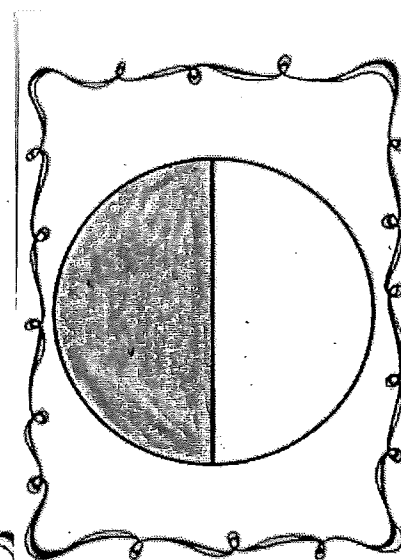
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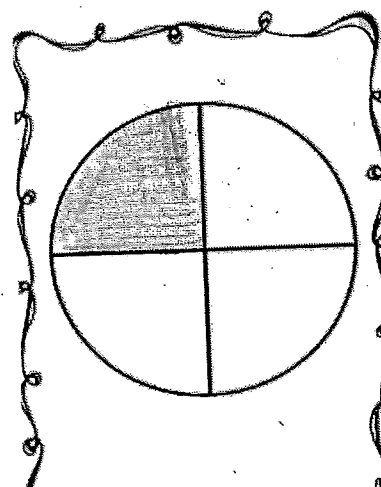
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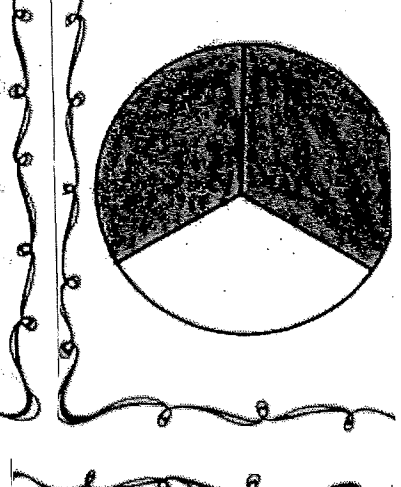
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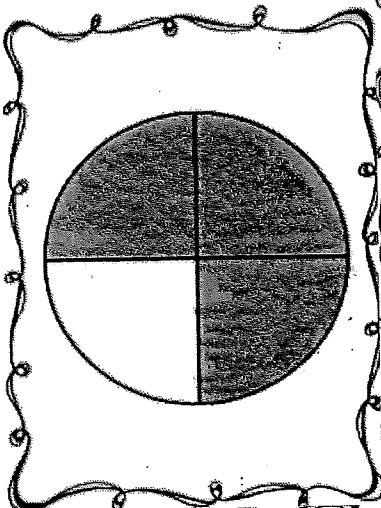
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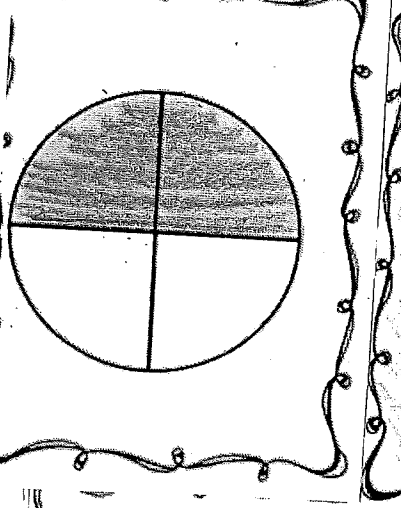
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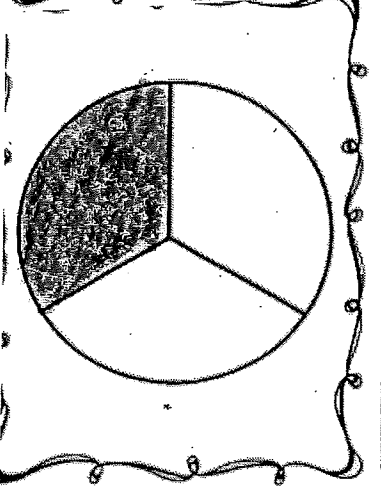
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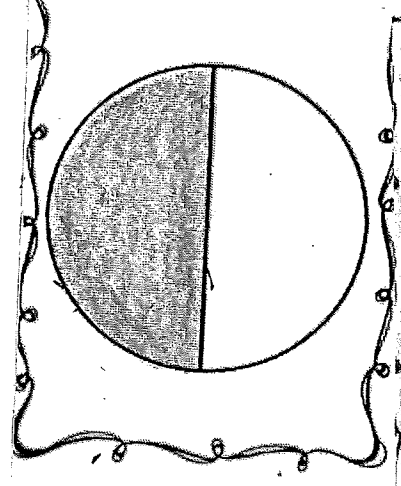
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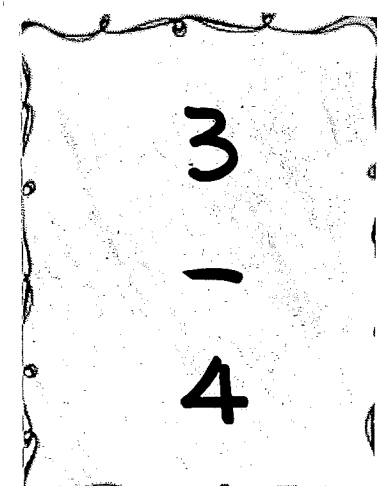
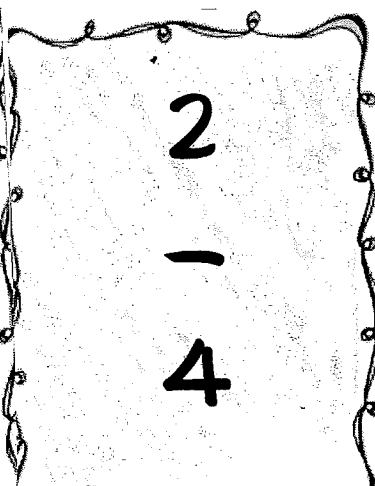
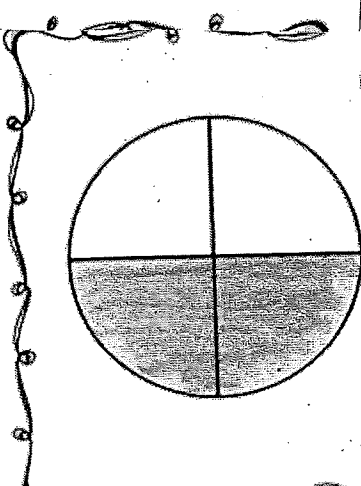
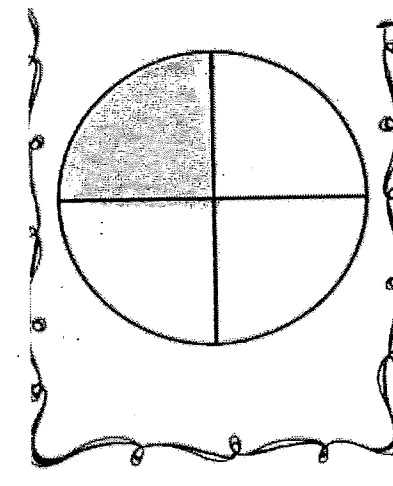
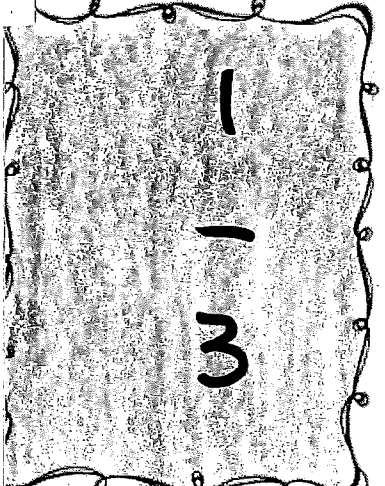
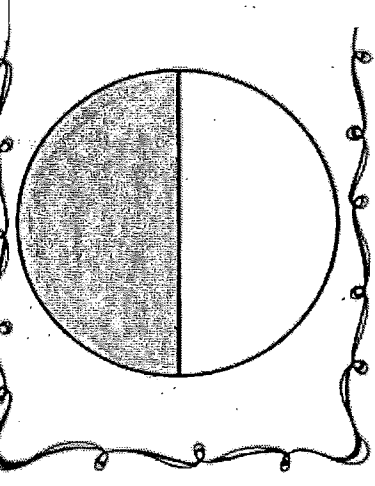
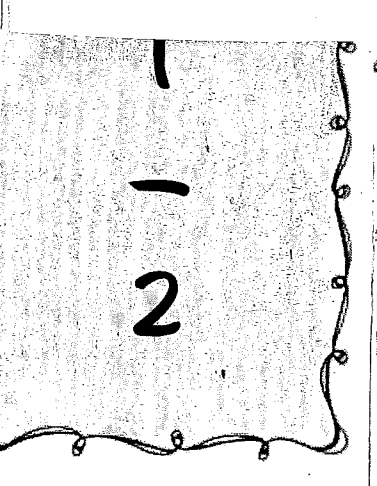
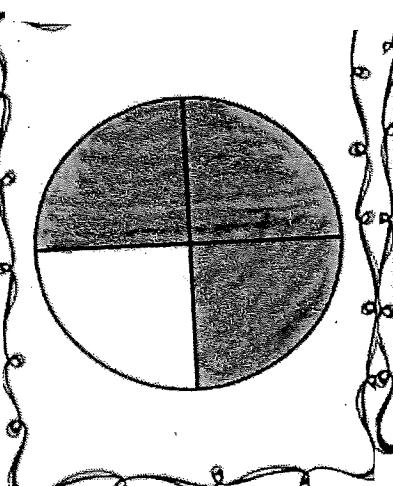
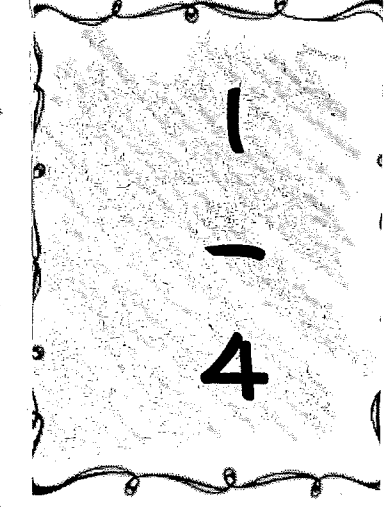
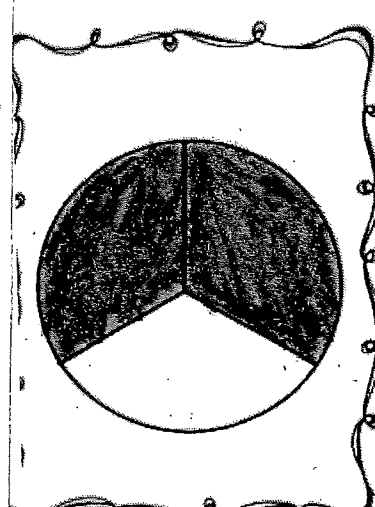
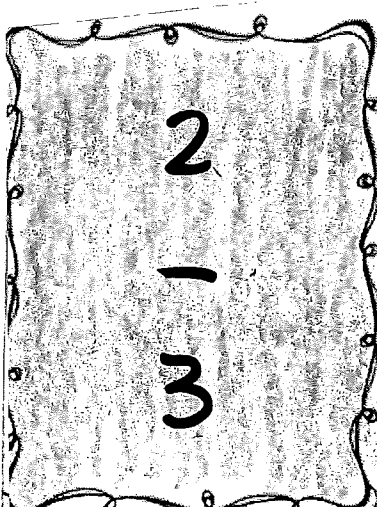
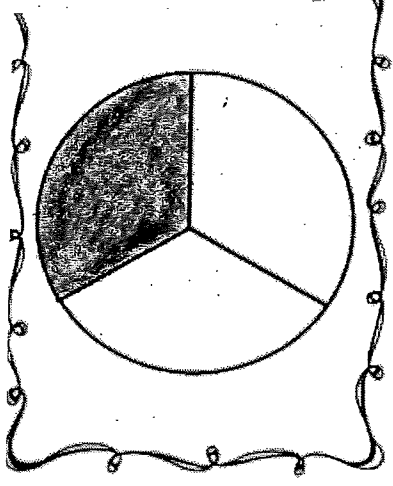
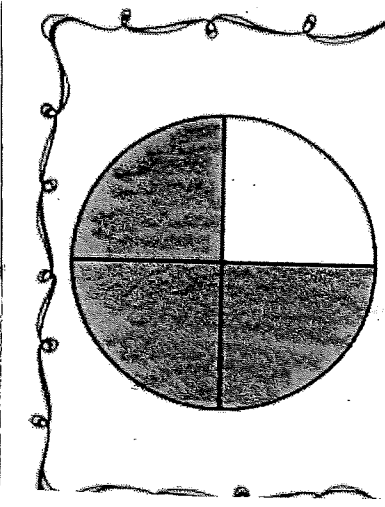
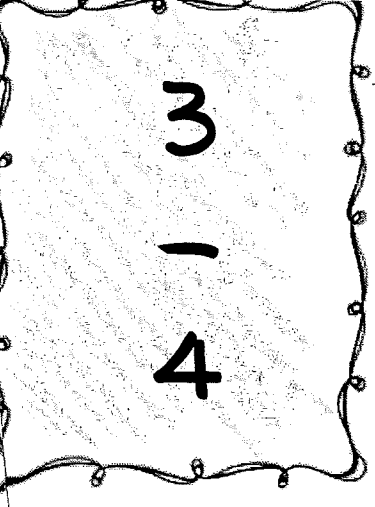
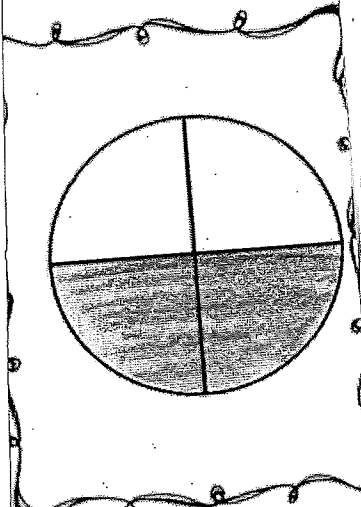
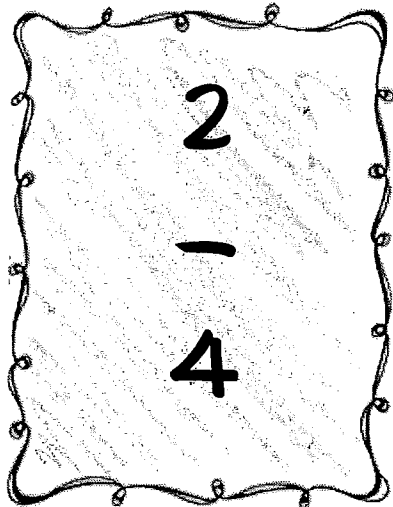
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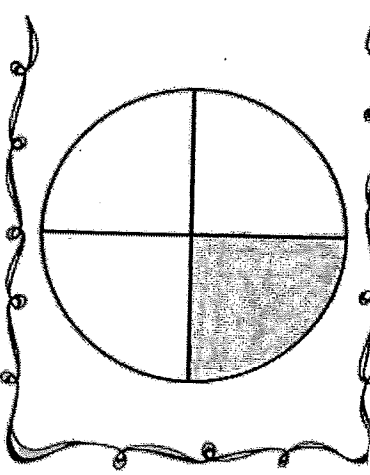


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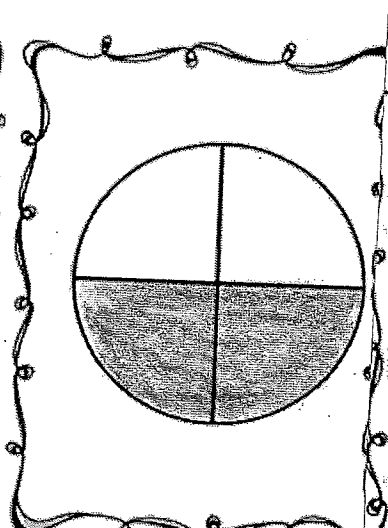


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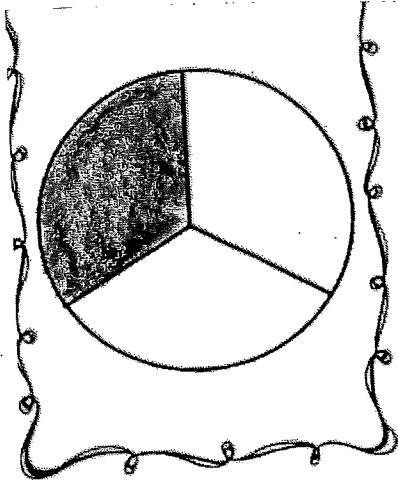




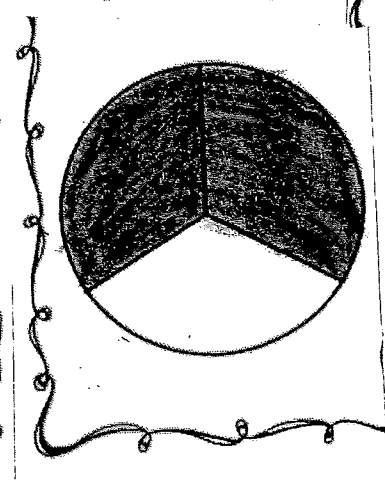
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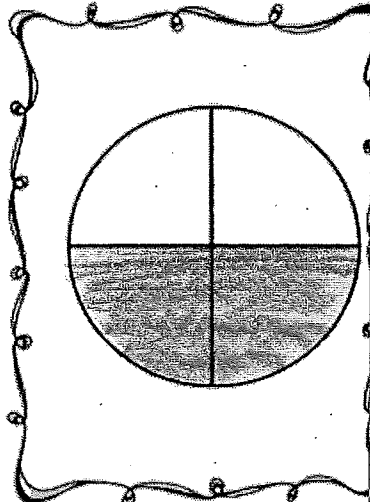
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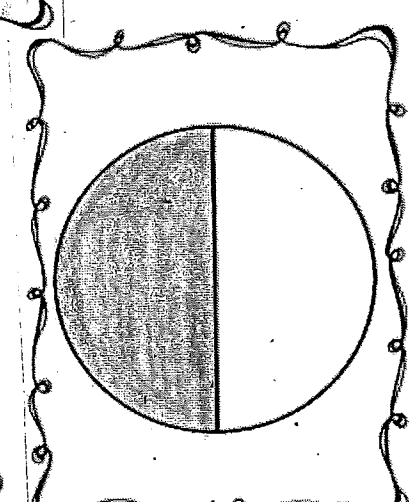
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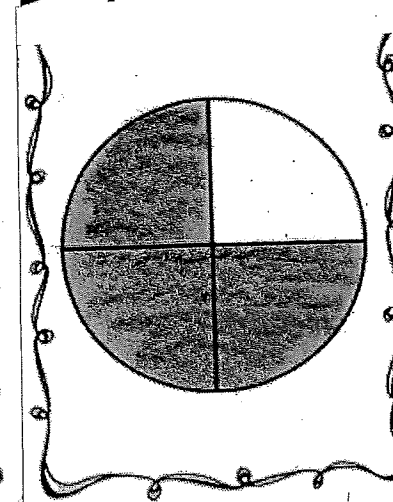


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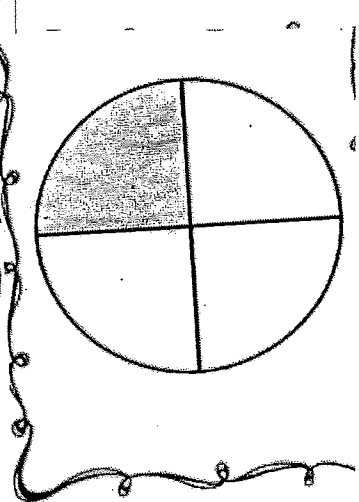


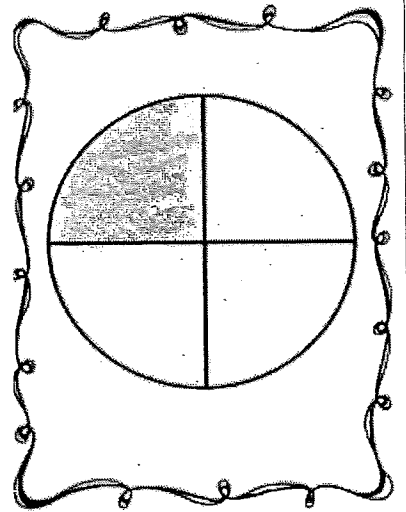
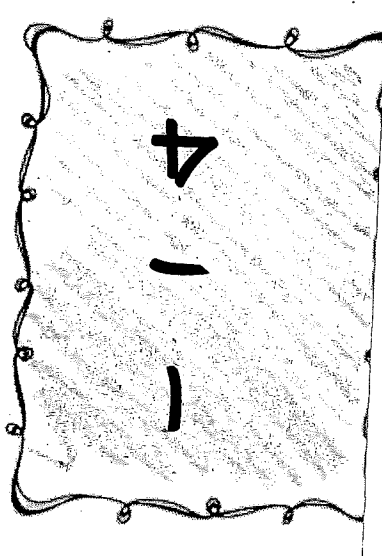
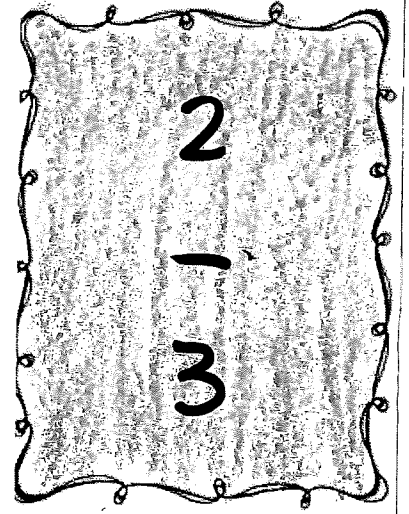
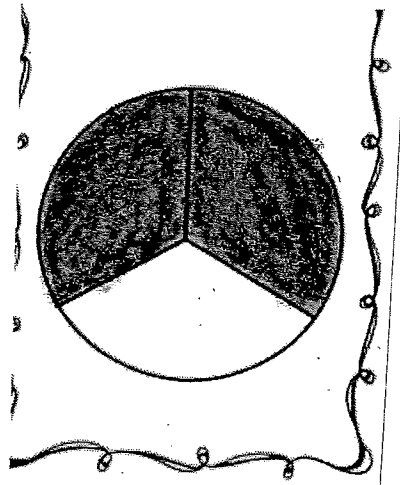
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MAPPS Childcare grades K-1

MAPPS Session 5

Developing Fraction Concepts IV

Materials Needed:

Snacks

Fraction Memory

Fraction Fish

Color by Fraction Sheets

Hershey Challenge Sheet

Hershey Candy Bars (enough for each participant)

Sandwich bags

Chart Paper or White Board

Markers

Crayons

Notecards

Various Children's Books

6:00-6:15	Set up classroom. Place worksheets, notecards, and crayons on the tables. Write your name on the white board or chart paper. Leave it up for the evening. Write on white board in large print, "Why do we need fractions?"
6:15-6:30	As the students enter have them make name tags to display and then introduce themselves to one another (If there are new students). Make a nametag for yourself with the students and display that for them to see for the evening. Have students go up to the board and write their answer to your question and pass the marker to the next person once they've finished with their description.
6:30-6:45	Review concepts covered in prior weeks. Ask students what they remember from the previous weeks and go over the answers on the board. If there are any new students have the other students help explain what we've been doing the last few weeks. Encourage the students to take the lead with describing fractions and how much they're used. It will also help them with their understanding. If it's not already on the board, remind them of the phrase "part over whole." Ask if they had any experiences with fractions over the last week that they could share.

6:45-7:15	Instruct the students to start working on the coloring sheets that are on their tables. Do a couple of them with the class encouraging students to help one another but still complete their own. If some students finish before others have them start another one while waiting. When everyone has completed at least one have them put them in their folders to take home.
7:15-7:30	Allow the students a bathroom break followed by a snack. During snack, read a few books and have the students sit on the floor.
7:30-8:00	Introduce students to the Hershey Bar Challenge. Have them sit in a circle on the floor and pass the worksheets around to aid in explaining the process of the game. Use a candy bar as a visual and work through the first two problems. Ask if there are any students who don't understand and then ask a student if someone would like to explain it to their peers. Emphasize the importance of them NOT EATING the candy bar, and explain that it may be eaten later. Once everyone understands the rules and the concepts have them explain it. Have the students go back to their seats, pass out the candy bars and begin. Work through each problem as a group. Encourage math discussions, and students to help one another. When finished, discuss what strategies were used to recognize fractions. Pass out the sandwich bags and have students place their candy pieces into the bags to take home.
8:00-8:20	Ask the students to explain what they've learned about fractions over the last week. Again, encourage math language and aid them in their explanation. Have them present at the white board if they prefer and give examples of any of the activities completed if desired. Allow group discussions and try to keep it focused on math. Offer the Fraction Memory and Fraction Fish activities. Allow students to choose which activities they would like to complete, split them into groups and execute the activities. If there is a new student ask the students if they would like to explain the rules and aid where necessary.
8:20-8:30	Help the students clean up the area. Gather any papers or folders they may be taking with them. Initiate a conversation about the activities they did. This will create a class discussion resulting in a reflection. Before you send the students home remind them to practice fractions and talk to their families about fractions.

What if the material is not challenging enough or too challenging.

If the material is not appropriate for certain students, encourage them to work together. If a student isn't challenged enough allow them to assist others and help explain the materials so they can all work together. Also, increase the values of numbers as needed to allow more challenging material. If a student isn't understanding the material, work with smaller numbers and more examples of fractions that they might recognize in their daily routines to assist in a better understanding. Encourage group discussions to help students understand by the different descriptions and examples from their peers.

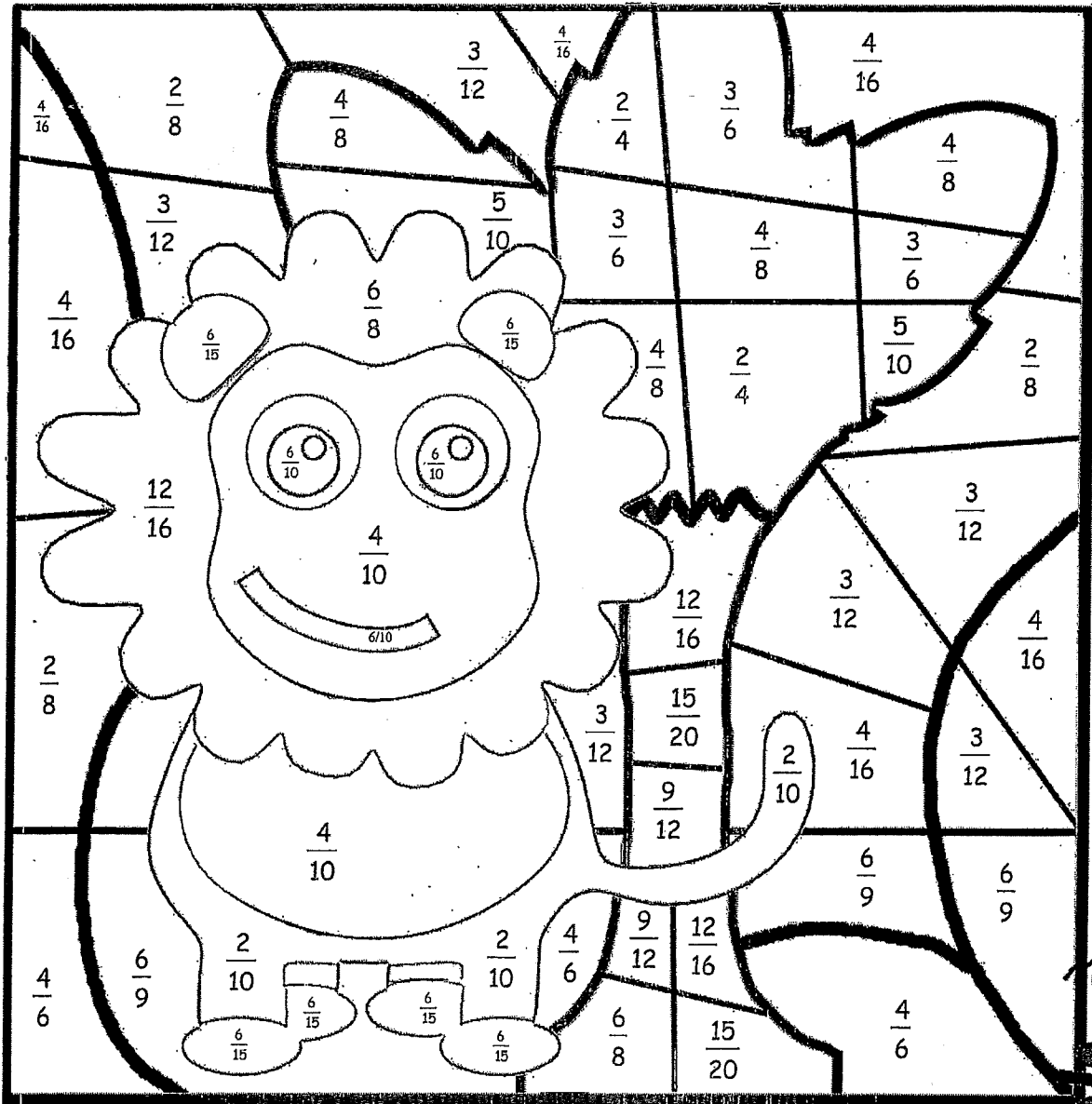
What if the students are bored or have an elevated level of energy

If the students are acting bored or have an elevated level of energy change the pace. Read a couple books, move the next activity to the floor (if possible) or different areas of the room that would require students to get on their feet. Break where needed or bring back an older activity (counting by fractions) to help with switching things up. Also, ask the students different questions that are relevant to fractions. Have them write their ideas on the white board. Encourage math discussions.

Color by Fraction – Equivalent Fractions

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

- Color all fractions that are equivalent to $\frac{1}{2}$ dark green
- Color all fractions that are equivalent to $\frac{2}{3}$ light green
- Color all fractions that are equivalent to $\frac{1}{4}$ blue
- Color all fractions that are equivalent to $\frac{3}{4}$ brown
- Color all fractions that are equivalent to $\frac{1}{5}$ orange
- Color all fractions that are equivalent to $\frac{2}{5}$ tan
- Color all fractions that are equivalent to $\frac{3}{5}$ black

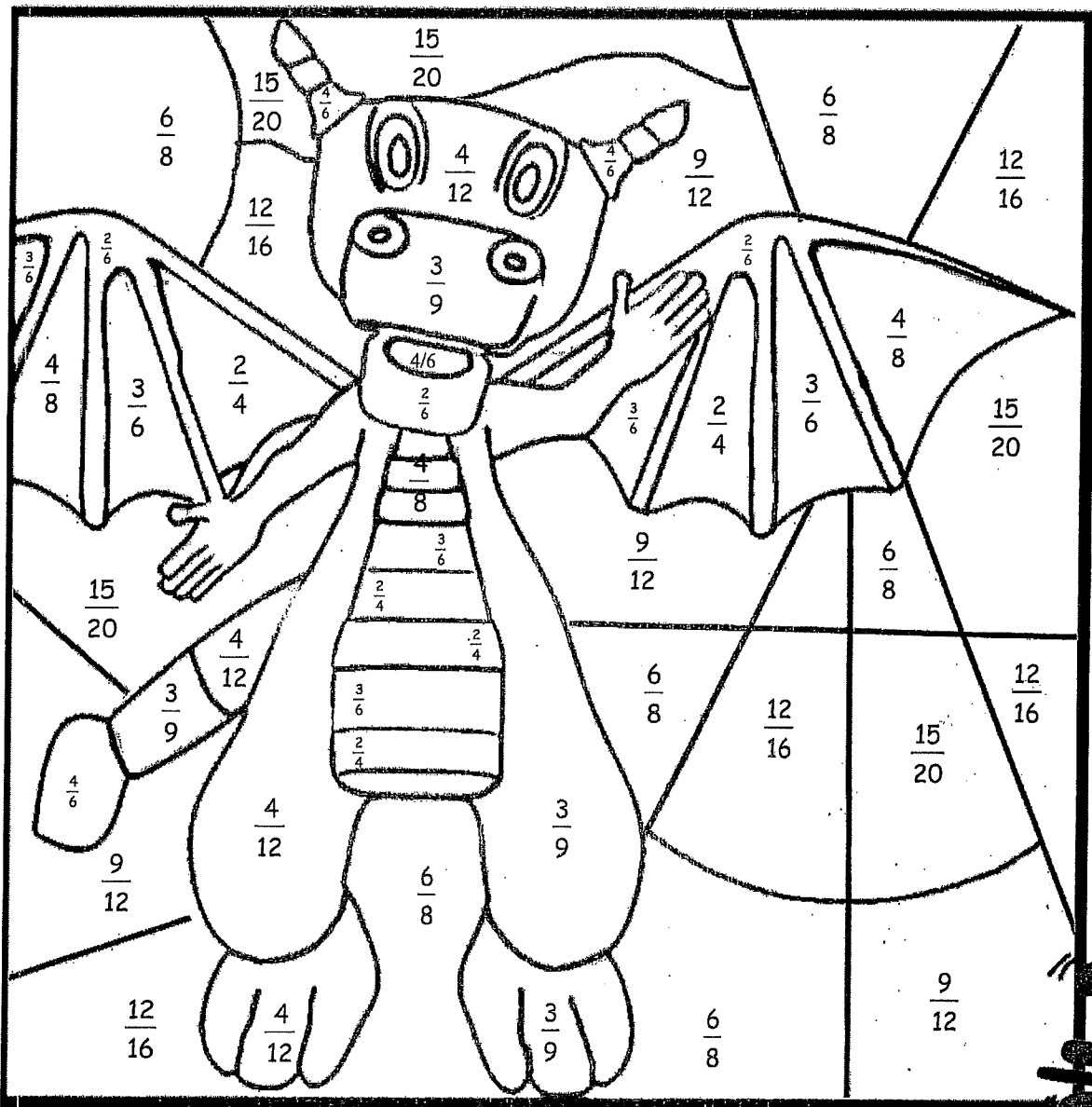


$$\frac{1}{3}$$

Color by Fraction – Equivalent Fractions

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

Color all fractions that are equivalent to $\frac{1}{2}$ yellow
Color all fractions that are equivalent to $\frac{1}{3}$ green
Color all fractions that are equivalent to $\frac{2}{3}$ red
Color all fractions that are equivalent to $\frac{3}{4}$ blue



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

Hershey Fractions Sheet

Name: _____

Before you open the candy bar estimate how many pieces make up the whole.

Estimate: _____

Actual: _____

Break the Hershey bar so each piece is on its own.

Put them together as if they were all connected again.

Take away 1 piece.

What fraction of the candy bar did you take away? _____

Take away another piece.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Is there another fraction that means the same thing? _____

Take away another piece.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Is there another fraction that means the same thing? _____

Put them back.

Take away 4 pieces.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Is there another fraction that means the same thing? _____

Put them back.

Take away 5 pieces.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Take away another piece.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Is there another fraction that means the same thing? _____

Take away another piece.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Put them back.

Take away 8 pieces.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Is there another fraction that means the same thing? _____

Put them back.

Take away 9 pieces.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Is there another fraction that means the same thing? _____

Take away another piece.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Is there another fraction that means the same thing? _____

Take away another piece.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Take away another piece.

What fraction of the candy bar did you take away now (always include the pieces taken away before)? _____

Is there another fraction that means the same thing? _____

MAPPS Childcare grades K-1

MAPPS Session 6

Developing Fraction Concepts VI

Materials Needed:

Snacks

Fraction Bingo Sheets (make up ahead of time)

Fraction Bingo Cards (make up ahead of time)

Construction Paper (any color)

8x10 Computer Paper (white)

8x10 Computer Paper (colored)

Chart Paper or White Board

Scissors (for prep work only)

Stapler

Completed Fraction Book (to use as a visual, directions below)

Glue

Ruler

Markers

Aqua Gems (or any other small piece for bingo)

Crayons

Notecards

Various Children's Books

6:00-6:15

Set up classroom. Place Bingo worksheets, white paper notecards, and crayons on the tables. Cut out circles (all same size- with diameter at about 1-1/2 inches for fraction books) from the colored 8x10 computer paper. Set aside for later. (May use squares, or rectangles too). Cut construction paper into thirds (horizontally) to provide a jacket for the books, and cut the white 8x10 computer paper into fourths

	<p>for the pages of the books. Set aside for later. If fraction book is not completed for visual, do so now. **(Having the paper cut out and the fraction book done ahead of time are extremely beneficial, as 15 minutes isn't a lot of prep time to complete the necessary tasks before starting)** Divide materials up by table (so you can easily distribute them when needed) and set aside. Write your name on the white board or chart paper. Leave it up for the evening.</p> <p>Write on white board in large print, "Where do we see fractions?"</p>
6:15-6:30	<p>As the students enter have them make name tags to display and then introduce themselves to one another (if there are new students). Make a nametag for yourself with the students and display that for them to see for the evening. Have students go up to the board and write their answer to your question and pass the marker to the next person once they've finished with their description.</p>
6:30-6:45	<p>Review concepts covered in prior weeks. Ask students what they remember from the previous weeks and go over the answers on the board. If there are any new students have the other students help explain what we've been doing the last few weeks. Encourage the students to take the lead with describing fractions and how much they're used. It will also help them with their understanding. If it's not already on the board, remind them of the phrase "part over whole." Ask if they had any experiences with fractions over the last week that they could share.</p>
6:45-7:05	<p>Write "Fraction Book" on the white board. Introduce the students to a fraction book. Show them the completed book to aid as a visual. Turn each page to show them that the fractions that are contained and then grab a piece of construction paper to start making one. Show the students as you fold the paper in half and write Fraction Book on the outside. Point to the white board so they see you have it written out for them to aid in spelling for when they make their own. Set the cover aside and take a quartered piece of white computer paper. Choose a shaped cut-out (circle, squared, or whatever is available) and glue that shape onto the piece of paper. Draw a line through half of it and color half of it in. Next to the shape write the fraction "1/2." The next fraction on the back side will be "2/2." After gluing the shape in, draw a line with a ruler through half and color both halves and write the fraction out. Grab the already divided materials, and place them on the tables so the students can get started. While they are starting, write out 1/2 on the board with a picture of what you did next to it, and then the same process for 2/2. Walk around the tables and observe the students starting their books. Aid where necessary.</p>
7:05-7:20	<p>Allow the students a bathroom break followed by a snack. During snack, read a few books and have the students sit on the floor.</p>
7:20-7:45	<p>Having left the book materials on the tables during snack, makes it easier to get back at them. Draw on the board three circles (or any other offered shape) that is split into three's. Ask the students how many we would color in on the first circle, second, and then third. Also ask them what fraction we would write next to them and write that on the white board. Give them time to glue in, color, and label their thirds onto their sheets. Once everyone is done draw four circles (or other shape) onto the board and split into four's. Ask the students how many should be colored in on the first, second, etc. Also have them answer what fraction you would put next to the pictures. Write them in and leave them on the board while the students finish with their four's. When everyone has them done, on the back and final page we will</p>

	have them glue one last shape. On the board you will tell the students that you have a whole number and ask them what portion you need to color in. Once you hear them answer "one" you color it in and ask them what number you are going to put next to it. Write that in and leave it up while the students finish their fraction books. Collect the completed pages, staple them into books and set them aside to dry.
7:45-8:00	Clean up from the fraction books and ask the students to explain what they've learned about fractions over the last few weeks while doing that. Again, encourage math language and aid them in their explanation. Have them present at the white board if they prefer and give examples of any of the activities completed if desired. Allow group discussions and try to keep it focused on math.
8:00-8:20	Introduce the concept of bingo. Pass out aqua gems to each table and have the students assist in any explanations if needed. With the Bingo sheets already on the tables, get out the cards and start reading off the fractions. Write the numbers on the white board (not the picture) and observe the students to see if they are all following along. Encourage students to help one another if needed. Play as many games as necessary and discuss different reasons why math is fun.
8:20-8:30	Help the students clean up the area. Gather any papers or folders they may be taking with them. Have them put their fraction books into their folders. Initiate a conversation about the activities they did. This will create a class discussion resulting in a reflection. Before you send the students home remind them to practice fractions and talk to their families about fractions.

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Fraction Bingo

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

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

$$\frac{0}{4}$$

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

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

$$\frac{0}{2}$$

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

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

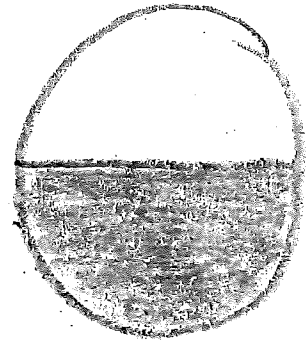
$$\frac{2}{4}$$

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

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

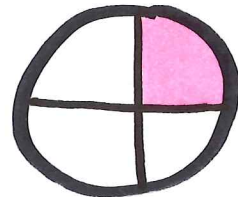
$$\frac{3}{4}$$

Fraction Book

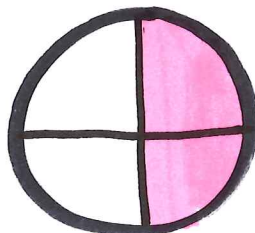


$\frac{1}{2}$

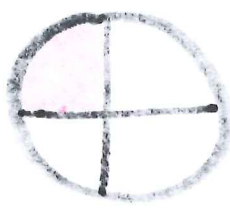







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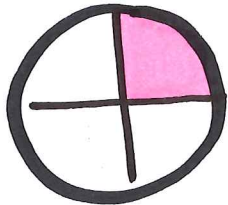
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FRACTION BINGO!

		
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FRACTION BINGO!



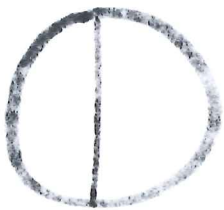
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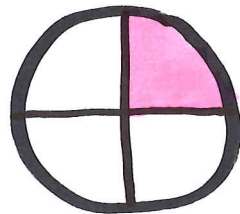
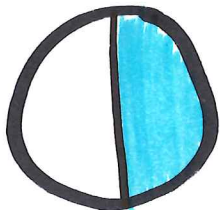
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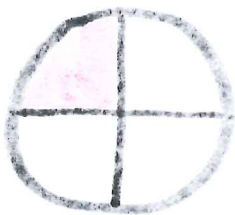
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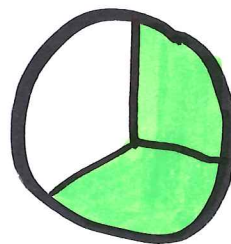
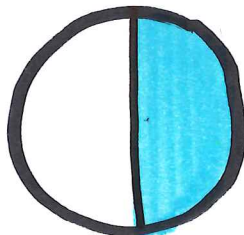
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FRACTION BINGO!



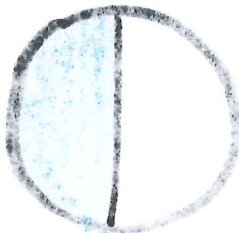
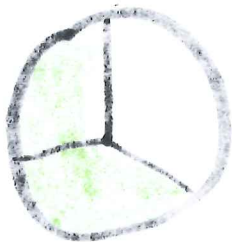
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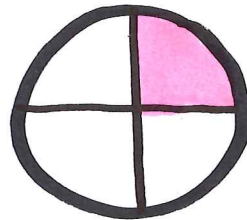
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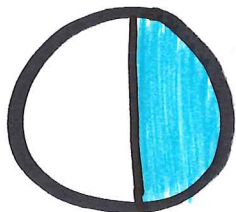
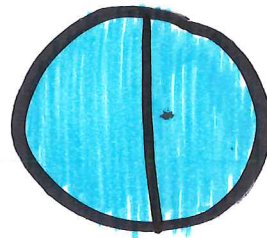
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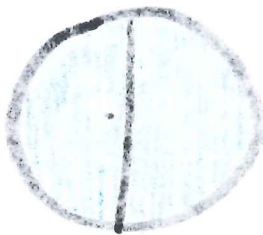
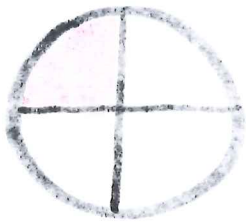
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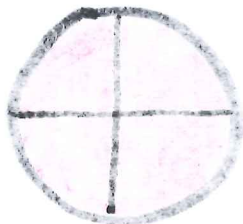
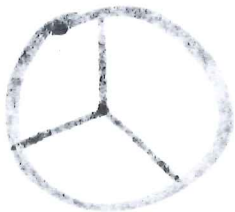
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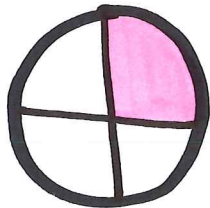
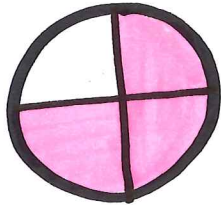
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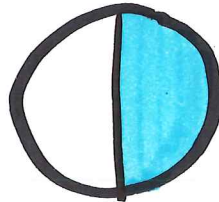
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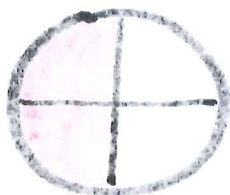
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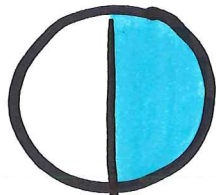
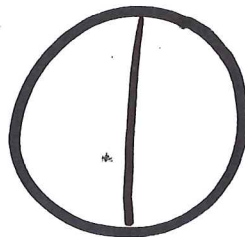
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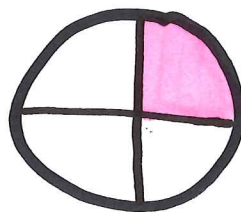
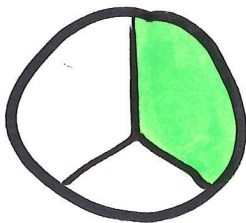
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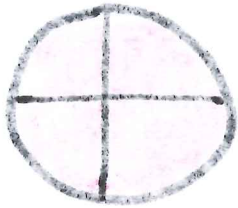
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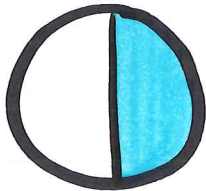
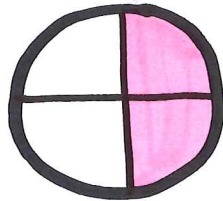
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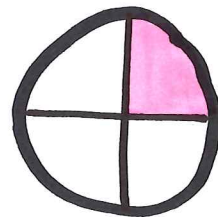
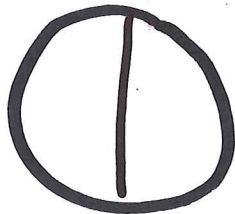
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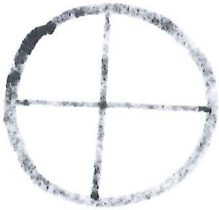
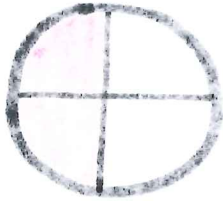
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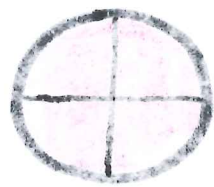
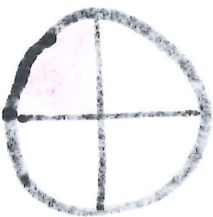
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FRACTION BINGO!



FREE!



MAPPS Childcare grades K-1

MAPPS Session 7

Developing Fraction Concepts VII

Materials Needed:

Snacks

Fraction Memory

Dry-Erase Boards

Expo Markers

Name the Fraction

BLM 33

BLM 42 (cross off questions and write in fractions appropriate for what they've learned)

Chart Paper or White Board

Markers

Crayons

Scissors

Notecards

Various Children's Books

6:00-6:15	Set up classroom. Place worksheets, notecards, and crayons on the tables. Write your name on the white board or chart paper. Leave it up for the evening. Write on white board in large print, "What is special about fractions?"
6:15-6:30	As the students enter have them make name tags to display and then introduce themselves to one another (If there are new students). Make a nametag for yourself with the students and display that for them to see for the evening. Have students go up to the board and write their answer to your question and pass the marker to the next person once they've finished with their description.
6:30-6:45	Review concepts covered in prior weeks. Ask students what they remember from the previous weeks and go over the answers on the board. If there are any new students have the other students help explain what we've been doing the last few weeks. Encourage the students to take the lead with describing fractions and how much they're used. It will also help them with their understanding. If it's not

	already on the board, remind them of the phrase “part over whole.” Ask if they had any experiences with fractions over the last week that they could share.
6:45-7:15	Introduce students to BLM 42 (the grid worksheet). (Have the questions crossed off and appropriate fraction values written next to each grid). I.e.: try to make them manageable for the students. Encourage students to help one another but still complete their own. If some students finish before others have them start another one while waiting. When everyone has completed their worksheets discuss as a group, showing how each student decided to shade their area in. Have the students explain their reasoning to the group. Discuss how the same fractions can be written in different ways and use the worksheet as a visual.
7:15-7:30	Allow the students a bathroom break followed by a snack. During snack, read a few books and have the students sit on the floor.
7:30-7:45	Introduce students to Name the Fraction. Go over the rules with the students and have the students repeat them back to ensure understanding. Pass out white boards and expo markers, and begin.
7:45-8:20	Introduce to the students BLM 33 (a fraction strip). Show them how to complete it as you cut the strips out and fold the pieces to help with a reference as to where to draw the line. Have them label each line as they go up the strip (just like the “fourth’s” strip. During this time you can have your weekly discussion asking the students to explain what they’ve learned about fractions over the last week. Again, encourage math language and aid them in their explanation. Have them present at the white board if they prefer and give examples of any of the activities completed if desired. Allow group discussions and try to keep it focused on math.
8:20-8:30	Help the students clean up the area. Gather any papers or folders they may be taking with them. Initiate a conversation about the activities they did. This will create a class discussion resulting in a reflection. Before you send the students home remind them to practice fractions and talk to their families about fractions.

What if the material is not challenging enough or too challenging.

If the material is not appropriate for certain students, encourage them to work together. If a student isn’t challenged enough allow them to assist others and help explain the materials so they can all work together. Also, increase the values of numbers as needed to allow more challenging material. If a student isn’t understanding the material, work with smaller numbers and more examples of fractions that they might recognize in their daily routines to assist in a better understanding. Encourage group discussions to help students understand by the different descriptions and examples from their peers.

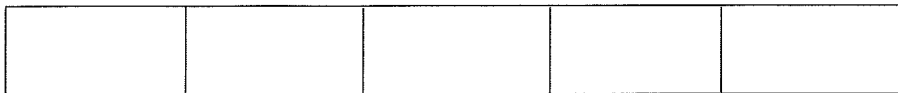
What if the students are bored or have an elevated level of energy

If the students are acting bored or have an elevated level of energy change the pace. Read a couple books, move the next activity to the floor (if possible) or different areas of the room that would require students to get on their feet. Break where needed or bring back an older activity (counting by fractions) to help with switching things up. Also, ask the students different questions that are relevant to fractions. Have them write their ideas on the white board. Encourage math discussions.

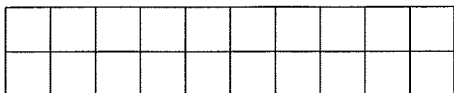
Fraction Grids

1. Shade each grid as indicated.

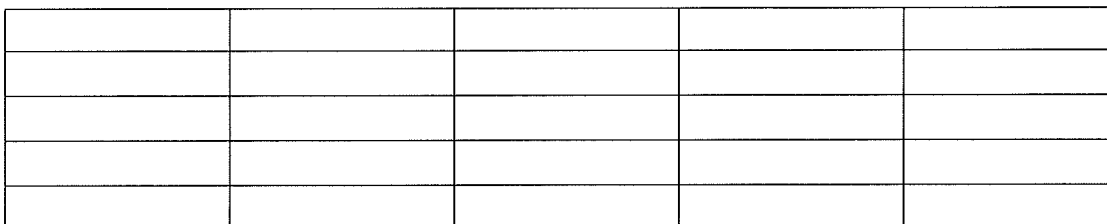
a) $\frac{3}{5}$



b) Shade $\frac{1}{2}$ of this grid.



c) Shade $\frac{10}{25}$ of this grid.



2. Finish drawing the rest of the grid.

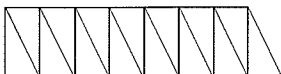
a) The portion shown is $\frac{1}{2}$ of the whole grid.



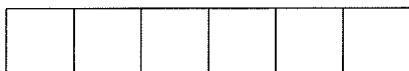
b) The portion shown is $\frac{4}{5}$ of the whole grid.



c) The portion shown is $\frac{15}{25}$ of the whole grid.

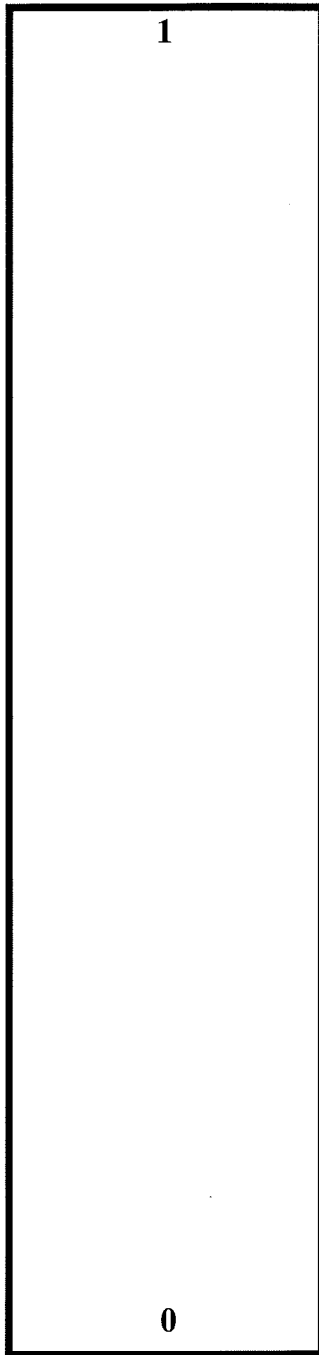


d) The portion shown is $\frac{6}{8}$ of the whole grid.

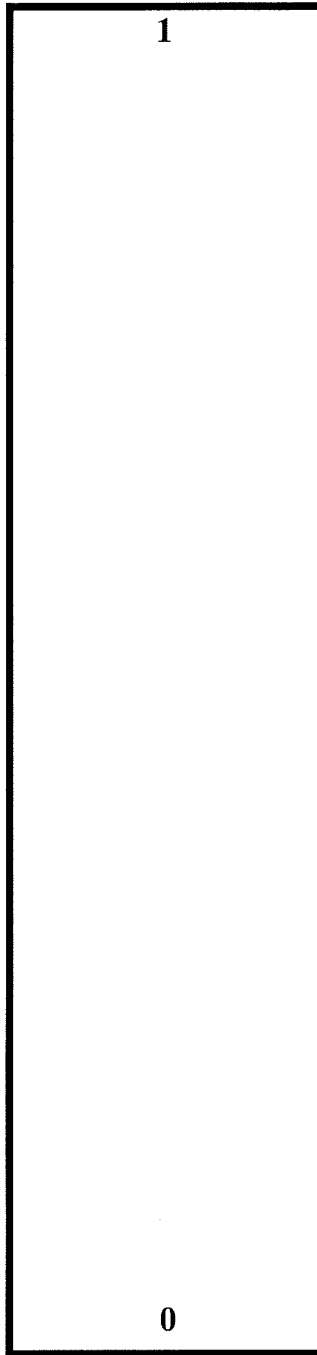


Fraction Strips A

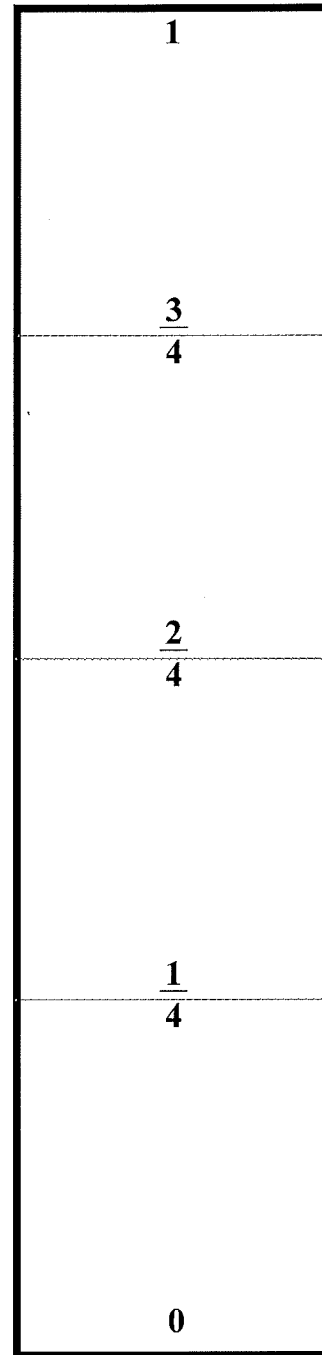
Cut on solid outlines to make three fraction strips.



Halves



Thirds



Fourths

MAPPS Childcare grades K-1

MAPPS Session 8

Fraction Concepts

Materials Needed:

Snacks

Fraction Memory

Fraction Bingo

Fraction Fish

Construction Paper (cut in half)

8x10 Computer Paper (colored)

Paper Cut-Out Shapes

Chart Paper or White Board

Scissors

Glue

Markers

Crayons

Notecards

Various Children's Books

Treats (optional)

6:00-6:15	Set up classroom. Place construction paper halves, notecards, and crayons on the tables. Write your name on the white board or chart paper. Leave it up for the evening. Write on white board in large print, "What I learned about fractions..."
6:15-6:30	As the students enter have them make name tags to display and then introduce themselves to one another (if there are new students). Make a nametag for yourself with the students and display that for them to see for the evening. Have students go up to the board and write their answer to your question and pass the marker to the

	next person once they've finished with their description.
6:30-6:40	Review concepts covered in prior weeks. Ask students what they remember from the previous weeks and go over the answers on the board. If there are any new students have the other students help explain what we've been doing the last few weeks. Encourage the students to take the lead with describing fractions and how much they're used. It will also help them with their understanding. If it's not already on the board, remind them of the phrase "part over whole." Ask if they had any experiences with fractions over the last week that they could share.
6:40-7:10	Have the students make thank you cards for their parents/family members for bring them to the MAPPS programs. Pass out the scissors, paper cut outs, and glue. Spell any words needed on the board to help the students complete their cards. Encourage them to use the various shapes and turn them into fractions for their cards. Upon completion, collect the cards and set aside to dry.
7:10-7:20	Allow the students a bathroom break followed by reading a few books while the students sit on the floor. After the books get out the snacks and any other treats (if available) and pass out to students. This begins the End of the Sessions Party.
7:20-7:50	Write on the board the games that are provided. Fraction memory, Fraction fish, Fraction Bingo. Encourage the students to pick the activities they would like to participate in. Encourage math language and open discussions about what was learned over the last eight weeks while students are playing their fraction games amongst each other.
7:50-8:00	Help the students clean up the area. Gather any papers or folders they may be taking with them. Initiate a conversation about the activities they did. This will create a class discussion resulting in a reflection. Pass back the thank you cards to the students and walk them to the main area by parents where the graduation ceremony will begin.

What if the material is not challenging enough or too challenging.

If the material is not appropriate for certain students, encourage them to work together. If a student isn't challenged enough allow them to assist others and help explain the materials so they can all work together. Also, increase the values of numbers as needed to allow more challenging material. If a student isn't understanding the material, work with smaller numbers and more examples of fractions that they might recognize in their daily routines to assist in a better understanding. Encourage group discussions to help students understand by the different descriptions and examples from their peers.

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