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# Bits and Pieces -- Working with Fractions [6th-8th grade]

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# UNDERSTANDING BY DESIGN

## Unit Cover Page

Unit Title: Bits and Pieces - Working with Fractions

Grade Level: Middle Grades (6-8) Severe Special Needs

Subject/Topic Area(s): Mathematics/Fractions/Severe Special Needs

Designed By: Kathleen Kilday, Special Educator

Time Frame: 33 days

School District: Denver Public Schools

School: Bruce Randolph School

School Address and Phone: 3955 Steele St., Denver, CO, 80205  
(720) 424-1080

### **Brief Summary of Unit:**

In this unit, students will be introduced to fractions. Students will have practice identifying commonly used fractions using physical models, pictures, numbers, and word problems. Using these skills, students will recognize equivalent fractions and be able to sort fractions from largest to smallest and vice versa. Students will also be introduced to adding and subtracting these commonly used fractions.

To demonstrate their knowledge of fractions, students will be asked to complete a performance assessment. The students will be given a recipe and 2 situations. The students will use the given information to amend the recipe for the appropriate number of guests for each situation. The students will record the new recipes as well as their mathematical reasoning.

Due to the severity of disabilities presented by my students, this unit contains a great deal of repetition. These activities can be repeated as many times as necessary to accommodate the needs of your students. The pace of this unit can be sped up or slowed down as needed. Keep in mind that it will be important for you to monitor student understanding throughout and make instructional decisions accordingly.

**Unit: Bits and Pieces – Working with Fractions**  
**Grade: 6, 7, and 8 Grade (Severe Special Needs)**

**Stage 1: Desired Results**

**Established Goals**

**Colorado Mathematics Standards and Expanded Benchmarks**

Standard 1: Develop Number Sense

- 1.1 Demonstrate meanings for whole numbers, commonly used fractions & decimals, and representing equivalent forms of the same number through the use of physical models, drawings, calculators, and computers.

Standard 2: Use Algebraic Methods

- 2.5 Use algebraic symbols to represent and analyze situations

Standard 6: Use Computational Techniques

- 6.2 Adding and subtracting commonly used fractions and decimals using physical models

**Understandings**

*Students will understand that...*

- Fractions are part of a whole or set.
- Fractions can look different and represent the same amount.

**Essential Questions**

1. Why do we need fractions?
2. How can numbers look different but represent the same amount?

**Knowledge**

*Students will know...*

- Vocabulary related to fractions such as numerator, denominator, equivalent, halves, thirds, quarters, and tenths.
- Choose the correct operation in a word problem.

**Skills**

*Students will be able to...*

- Demonstrate that n equal parts of  $1/n$  each of an object make a whole unit (ex. 4  $\frac{1}{4}$  pieces make 1 whole)
- Divide whole units or discrete objects into equal portions (halves, thirds, quarters, tenths)
- Compare fractions to determine  $>$   $<$  or  $=$
- Add and subtract using halves, thirds, and quarters

## Stage 2: Assessment Evidence

### Performance Task:

(This task can be done in groups, partners or individually. It will depend on a student's level of independence.)

#### A Cooking Conundrum

(A conundrum is a problem or riddle!)

#### The 1<sup>st</sup> Conundrum:

You are having some family over for dinner this Friday. You invited 4 family members. Just as you are beginning to fix your meal, your family calls and they tell you that they are bringing over 2 extra guests to eat at your home. Now you must change the recipe to accommodate for the extra mouths to feed.

#### The 2<sup>nd</sup> Conundrum:

A week has now passed. You are hosting dinner for your friends this weekend. It will be important for your dinner gathering that you have the appropriate amount of food for your guests. You have invited 4 people over for dinner. Unfortunately, someone has cancelled at the last moment. Now you must fix your recipe to feed exactly the number of people who are coming over for dinner.

#### The Solution:

- Your job will be to fix your recipes for both dinners so that it serves the appropriate number of people (use the provided worksheets to help you). Make sure your fractions are reduced.
- You will write the recipes with the new amounts on the recipe cards provided.
- You will create a drawing that illustrates how you amended your recipe and the fractions used.
- You will also write an explanation of how you arrived at your answer (this must be typed).
- All of this will be displayed on a poster.

**\*\*\*\* This assessment will be graded by use of a rubric. This rubric is based on the extended constructed response framework provided by CDE. \*\*\*\***

### Other evidence:

*(Quizzes, tests, academic prompts, self-assessments, etc.*

*note - these are usually included where appropriate in Stage 3 as well)*

pre-assessment (written test format)

weekly quizzes

vocabulary boxes

post-assessment (written test format)

## Stage 3: Learning Activities

*(Steps taken to get students to answer Stage 1 questions and complete performance task)*

>>>> This unit is based on a double blocked math section. Students attend this class for two 45 minute periods each day. <<<<

\*\*\*\* Students complete warm-up questions on a daily basis that address basic concepts from across the curriculum. Students complete warm-ups that are directed at their individual instructional level. This takes approximately 20 minutes at the beginning of the block each day. \*\*\*\*

### Day 1:

#### Fractions Pre-Assessment

In order to gauge student levels in fractions and to demonstrate growth throughout the unit, students will be given a pre-assessment that addresses the needed knowledge and skills.

Due to the level of the students' disabilities, the written test will be read aloud to the students. Assessment in this program is also based on level of independence. Teacher and paraprofessionals will use strategic levels of assistance to help students answer questions. The first student response will be taken and will require no further assistance.

If time allows, complete a K-W-L chart with the students to refresh their memories about fractions.

### Day 2:

#### Introduce 1<sup>st</sup> essential question - Why do we need fractions?

Anticipatory Set: Put two pictures on the projector. One will show several students with an EQUAL amount of a snack. The other will show an UNEQUAL distribution among the children. Students will be asked to "Think, Pair, Share" with their partners and eventually the class to decide which picture shows what is "fair." Discuss the terms equal and unequal.

Students will create vocabulary boxes for the words EQUAL and UNEQUAL.

Students will sort pictures of shapes that are cut in different ways and decide if the shapes are split equally or not. Choices will be discussed as a class.

Koala Game: In groups of 3, students will separate leaves for the koalas to eat based on activity cards that are drawn by the students. The activity cards include equal and unequal separations.

### Days 3, 4, and 5:

Review the concepts of equal and unequal with the students.

Activity: Students will look at the book Apple Fractions by Jerry Pallotta. As the students read the book as a class, they will also take notes using vocabulary boxes (See worksheets). These vocabulary boxes will become our fraction dictionary as we move through the unit. Students will record the definition of a fraction, numerator, denominator, and hear the terms half, third, fourth and tenth. In this book students will learn how to write a fraction. This will be reviewed in depth each day to solidify their learning.

Students will stand with the class and learn body motions that will help us to locate the numerator and the denominator in a written fraction. We raise our hands to the sky in an upward motion while saying numerator. Next we will move our palms towards the floor to indicate denominator.

Use the projector or white board to show students a fraction. Have students identify the numerator and denominator of several examples.

Students will complete a worksheet that requires students to use color-coding to write the numerator and denominator for a given picture. Students will also be asked to write a sentence to explain why that number goes in that spot. (These worksheets were designed by Isabel Campos, English Language Acquisition Instructor at Bruce Randolph School in Denver, Colorado. This lesson was designed as a team-teaching experience with Kathleen Kilday, Special Education Teacher at Bruce Randolph School in Denver, Colorado.)

Complete this section by administering Quiz 1 to students. This quiz should cover equal/unequal and what is a fraction as well as the vocabulary numerator and denominator. This will give you information in case students need a reteach.

### **Day 6: Halves**

Anticipatory Set: Treasure!

Put students in partners. Give each group a small container of "treasure" (beads) and 2 treasure chest cut-outs. Students will be asked "Is there a fair share for two people?" Have students decided in partners how to find out. Students will check using the method they designed.

Questions: How much treasure is in each chest? How much treasure is there altogether? Is there a fair share? Are the two piles equal?

Activity:

Once students have completed the Treasure! activity, they should complete a vocabulary box for the word "half." The teacher will explain that splitting something in half means that it is in 2 equal pieces or groups, how to write  $\frac{1}{2}$ , and what the numerator and denominator mean.

Students will be given fraction strips to cut out that demonstrate 1 whole,  $\frac{1}{2}$  and  $\frac{2}{2}$ .

Next students will complete a center-based learning activity called "Half and Half." This activity uses hands-on, interactive centers to discover more about halves. The centers are guided by activity cards and students will complete the short activity and then record their observations on a worksheet.

### **Day 7: Halves**

Students will review the information learned yesterday and see if anything needs to be added to their vocabulary box. If the Half and Half centers are not finished, give students a chance to look at the centers they missed yesterday.

Students will be given opportunities to complete different activities with halves today. This will likely be set up in centers again but could easily happen individually at each student's desk.

Students will be asked to complete the second half of a drawing of an object. Students will be asked to color  $\frac{1}{2}$  of a set of discrete objects (this tends to be the most difficult for students.

Watch for students that color  $\frac{1}{2}$  of each of the individual objects instead of splitting the objects

into groups.) Students will also be given word problems that will ask students to use visual representations to determine how many discrete objects are in a half.

If students are still having difficulty with separating discrete objects, show them how to draw arrays in a way that will show the number of groups and the number of objects in each group.

### **Days 8 and 9: Quarters**

Anticipatory Set: Students will be split into partners. Each partner group will receive 4 birthday cake cut-outs. They will also have candle cut-outs. The students will decide together how to divide these cutouts equally among the cakes. (See Treasure! Activity above) Questions: How many candles are on each cake? How many candles are there altogether? Are these fair shares? Are the four groups equal?

#### **Activity:**

Students will be asked to take out their fraction strips for halves. The students will be asked to take these strips and find a way to make them into 4 pieces instead of 2. Students will be given several moments to work on this. Students will then discuss that if they take each  $\frac{1}{2}$  and fold it in  $\frac{1}{2}$  again that four equal pieces are created.

Students will complete a vocabulary box for quarters/fourths. The teacher will explain that splitting something in quarters means that it is in 4 equal pieces or groups, how to write  $\frac{1}{4}$ , and what the numerator and denominator mean.

Students will complete Quarter Notes. These notes will allow students to examine each possible fraction including quarters such as  $\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$ , and  $\frac{4}{4}$ . Students will see a model depicted for the class and will be asked to draw a picture of a single object cut into quarters as well as a group of objects split into quarters. Students will be given the fraction strips for quarters. Students will be directed during the notes to look at how quarters and halves are related.

Students will complete a worksheet called "Exploring Quarters" which will give opportunities to shade and draw quarters in relation to a single object as well as groups of discrete objects. Students will also be given word problems on this worksheet.

At the end of Day 9, students should be ready for Fractions Quiz 2. This quiz will cover halves and quarters specifically. It should include opportunities to look at a single object as well as discrete objects and word problems.

### **Days 10 and 11: Thirds**

Anticipatory Set: Each student will be given a whole fraction strip. Students will be asked to find a way to split this strip into 3 equal pieces. How can this be done? Are the pieces equal? What would this fraction be called?

#### **Activity:**

Students will cut out fraction strips for thirds and then complete Thirds Notes using pizzas to illustrate  $\frac{1}{3}$ ,  $\frac{2}{3}$ , and  $\frac{3}{3}$ . \*See the Quarter Notes from last week. This will be similar to what we did for quarters.

- Share It game

Create cards that have different multiples of 3, as well as a counting board with 3 areas. Students will be asked to draw different numbers of counters (based on the card they pull). Students will then be asked to split these into equal groups. They will draw this, write the fraction, and then tell the number of counters in each section during the round.

- Draw me

Give students some prompts like "There are 12 bananas and 3 monkeys. How many bananas would each monkey get if they were split up equally? What fraction is represented in this question?" Students will need to draw out the question and then come up with an appropriate answer.

### **Days 12-14: Tenths**

#### Anticipatory Set:

Students will be given 1 dime and 1 dollar bill (use instructional money set - not actual cash). Students will then be asked to decide how these denominations of money are related. Students should write a sentence that explains the relationship between the two, as well as draw a picture to illustrate this relationship. This can be done in pairs as the other anticipatory sets.

#### Activities:

- Find a Tenth

Students will be given a find a tenth sorting board and 100 counters (sorted earlier). In pairs students will choose a card and sort the required number of counters. They will record the number of counters in a tenth for each card pulled.

- Color the Tenths Challenge

Students will be given several geometric shapes that are separated into 10 equal parts. Students will be asked to color different fractions of each shape.

- Tenths in the world around us

Many students may realize that in decimals the first place after the decimal is called tenths. Have the students come up with things that can be split into 10 equal parts (money, time, or other measurements). Why is it important to have different ways of splitting things up?

- Draw me

Give students some prompts like "There are 10 lily pads. 4 have frogs on them. What fraction is represented in this question?" Students will need to draw out the question and then come up with an appropriate answer.

By the end of Day 14, students should be ready for Quiz 3. This quiz will cover thirds and tenths specifically. It should include opportunities for students to illustrate fractions using a single object, discrete objects, and word problems.



## **Days 15 and 16: EQUIVALENT FRACTIONS**

**Introduce 2<sup>nd</sup> essential question - How can numbers look different and represent the same amount?**

Anticipatory Set:

For this students should be asked the essential question. Let them work to riddle it out. This should not be a simple answer. Some students will be very confused. See if the students can come up with the answer and then discuss as a group.

Activity:

Students should take out all of the fraction strips we have created so far. Begin with the 1 whole fraction strip. Students should look at the rest of their strips and find ways to make another strip the same size as 1 whole. Discuss how we can write 1 whole in a variety of ways including  $1/1$ ,  $2/2$ ,  $3/3$ ,  $4/4$ , and  $10/10$ . Students should draw each of these out on their own paper.

Students should create a vocabulary box for the term equivalent fraction. Equivalent fractions are fractions that are equal and represent the same amount.

Do this same activity with  $\frac{1}{2}$ . How many ways can you create one half? Students could also begin to think about splitting these into even smaller fractions such as sixths, eighths, and twelfths.

A worksheet could be created to help students conceptualize this.

Extension: What are some other ways that numbers can look different and represent the same amount? (decimals or percents)

## **Day 17:**

Anticipatory Set:

How many slices of pizza can you eat? What fraction of the pizza is this? How many slices of the pizza will be left when you are through? What fraction will be left over when you are full? Illustrate this.

Activity:

Students will use fraction strips to create 1 whole. They will mix up things like  $\frac{3}{4}$  and  $\frac{1}{4}$  make 1. This will be a precursor to addition of fractions.

Students can create shape cards to do this same thing. Students should cut out several shapes and then cut a fraction out of the shape. Have the partners identify the fraction missing and then write out the fraction numerically.

## **Day 18: Comparing Fractions**

Anticipatory Set:

Which is larger  $\frac{3}{4}$  or  $2/3$ ? Students should discuss this at their tables. Draw pictures to illustrate. Does this change your answer? Why?

Activity:

Students will be in small groups (3s?). Students will be given numerical fraction cards. These will be shuffled. Students will then take turns deciding which is larger. The group will check the work of its members using fraction circles or fraction strips.

To document the work the group is doing, students will record their choices by writing it out using > < or = symbols and draw a picture to illustrate each fraction.

### **Day 19:**

Activity: Exploring Fractions

Students will get game pieces that represent pizzas cut into a variety of fractions. Students will complete a series of activities to show what they know about how fractions work. 1) Each student will draw a pizza card. The students will determine which card is a larger fraction. This can be done with fractions in numerical form as well. 2) Like memory, the goal here is to find the pizzas that will combine to make one whole pizza. 3) Sort the pizza cards (or numerical fraction cards) in order from smallest to largest and vice versa. 4) Turn over two pizza cards. Create a fraction that would be between the two you have drawn.

### Quiz 4

By the end of Day 19, students should be ready for Quiz 4. This quiz will cover equivalent fractions, creating 1 whole, and greater than or less than. It should include opportunities for students to illustrate these fraction concepts using a single object, discrete objects, and word problems.

### **Days 20 and 21: ADDING FRACTIONS**

Anticipatory Set:

Think back to last week. When we put  $\frac{3}{4}$  of a pizza and  $\frac{1}{4}$  of a pizza together, how much pizza do we have? What operation are we using to complete this question? Can this be done for other answers as well? How?

Activity:

What do you need to have to keep a friendship going? (You want the students to get to "we need something in common." So lead them here.)

All friends have something in common with one another. This is how they work together. The same thing goes with fractions. Fractions must have something in common with one another before we can add or subtract them. The number that they must have in common is the denominator.

(Students can illustrate what the denominator is by reviewing the motions from the first week of this unit.)

Students should fill out a vocabulary box for "common denominator."

Fraction Strips - use halves and quarters to show that if you add  $\frac{1}{2}$  to  $\frac{1}{4}$  they won't add correctly unless we make  $\frac{1}{2}$  its equivalent of  $\frac{2}{4}$ . Then they add together perfectly. \*At this point they may need sixths or twelfths.\*

Use counters and let students do this same thing with discrete objects.

Students should complete matching exercises to match common denominators. Puzzles could also be created to reinforce this concept - mazes, etc.

### **Days 22 and 23:**

#### Activities:

Students will use fraction strips or circles to help them add fractions together. Students will be instructed to write and draw their problems so that they can see how the addition works in a variety of ways.

As the students begin to understand how the process works, students should be weaned from relying on the pictures and diagrams. Students should be encouraged to complete the numeric problems independently.

Students should also create problems for their partner to solve. **\*\*You may need to discuss improper fractions here. A vocabulary box can be completed for this term as well.\*\***

### **Day 24:**

#### Activity:

This website is an interactive smoothie making game that discusses lowest common denominator and adding fractions. Students will create smoothies according to various recipes and will complete several exercises on the way to creating these. This would be a great way to review the concepts before quizzing students.

[http://www.learnalberta.ca/content/mejhm/html/object\\_interactives/fractions/use\\_it.html](http://www.learnalberta.ca/content/mejhm/html/object_interactives/fractions/use_it.html)

#### Quiz 5

By the end of Day 24, students should be ready for Quiz 5. This quiz will cover adding fractions and lowest common denominator. It should include opportunities for students to illustrate these fraction concepts using a single object, discrete objects, and word problems.

### **Days 25-28: SUBTRACTING FRACTIONS**

These days should be similar activities to the adding fractions. Use the fraction strips and fold them to show subtracting pieces. Draw, create models, and show this numerically.

### **Day 29: Working with Mixed Numbers**

This day is optional.

#### Anticipatory Set:

Can you have  $11 \frac{1}{4}$  pieces? What would this number look like? Draw a picture to illustrate this.

#### Activity:

Students should complete a vocabulary box for the term "mixed number."

### **Day 30:**

Students should review and ask questions over the information covered since the last quiz. Review common denominator. Students could try to come up with a backwards version of the smoothie exercise from last week.

#### Quiz 6

By the end of Day 30, students should be ready for Quiz 6. This quiz will cover subtracting fractions. It should include opportunities for students to illustrate these fraction concepts using a

single object, discrete objects, and word problems.

Days 31-35:

These days will be used for completing the performance task as well as completing the post-test.

## Sources:

In creating this unit, I read materials from several sources. The activities presented in these sources have not been reproduced directly in any way.

Math in Action: Fractions Grade 1-2. Teacher Created Resources 2005.

Numerators and Denominators by Isabel Campos, Teach for America 2007

Basic Math Skills, Grade 2. Evan-Moor Corporation, 2003.

Basic Math Skills, Grade 3. Evan-Moor Corporation, 2003.

[http://www.learnalberta.ca/content/mejhm/html/object\\_interactives/fractions/use\\_it.html](http://www.learnalberta.ca/content/mejhm/html/object_interactives/fractions/use_it.html)

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

# A Cooking Conundrum

(A conundrum is a problem or riddle!)



## The 1<sup>st</sup> Conundrum:

You are having some family over for dinner this Friday. You invited 4 family members. Just as you are beginning to fix your meal, your family calls and they tell you that they are bringing over 2 extra guests to eat at your home. Now you must change the recipe to accommodate for the extra mouths to feed.

## The 2<sup>nd</sup> Conundrum:

A week has now passed. You are hosting dinner for your friends this weekend. It will be important for your dinner gathering that you have the appropriate amount of food for your guests. You have invited 4 people over for dinner. Unfortunately, someone has cancelled at the last moment. Now you must fix your recipe to feed exactly the number of people who are coming over for dinner.



## The Solution:

- Your job will be to fix your recipes for both dinners so that it serves the appropriate number of people (use the provided worksheets to help you). Make sure your fractions are reduced.
- You will write the recipes with the new amounts on the recipe cards provided.
- You will create a drawing that illustrates how you amended your recipe and the fractions used.
- You will also write an explanation of how you arrived at your answer (this must be typed).
- All of this will be displayed on a poster.

Student Name: \_\_\_\_\_ Group: \_\_\_\_\_ Date: \_\_\_\_\_

## A Cooking Conundrum Rubric

	4 points	3 points	2 points	1 point	0 points
<b>Mathematical knowledge</b>	<ul style="list-style-type: none"> <li>- Effectively communicates the student's mathematical understanding.</li> <li>- The student's strategy and execution meet the content, thinking processes and qualitative demands of the task.</li> <li>- Minor omissions may exist, but do not detract from the correctness of the response.</li> </ul>	<ul style="list-style-type: none"> <li>- Adequate evidence of the learning and strategic tools necessary to complete the prompted purpose.</li> <li>- may contain overlooked issues, misleading assumptions, and/or errors in execution.</li> <li>- can revise the work to accomplish the task with the help of written feedback.</li> <li>- does not need a dialogue or additional instructions.</li> </ul>	<ul style="list-style-type: none"> <li>- Partially completes the task, but lacks adequate evidence of the learning and strategic tools that are needed to accomplish the prompted purpose.</li> <li>- It is not clear that the student is ready to revise the work without more instruction.</li> </ul>	<ul style="list-style-type: none"> <li>- Some evidence of mathematical knowledge that is appropriate to the intent of the prompted purpose.</li> <li>- An effort was made to accomplish the task, but with little success.</li> <li>- Minimal evidence in the response demonstrates that with instruction the student can revise the work to accomplish the task.</li> </ul>	<ul style="list-style-type: none"> <li>- The response lacks any evidence of mathematical knowledge that is appropriate to the intent of the task.</li> </ul>
<b>Written Work</b>	<ul style="list-style-type: none"> <li>- My writing is clear and does what the prompt asked me.</li> </ul>	<ul style="list-style-type: none"> <li>- My writing is pretty good.</li> <li>- I did what the prompt asked of me, but I did not give enough information in my answers.</li> </ul>	<ul style="list-style-type: none"> <li>- My writing is not clear enough and I didn't follow the prompt.</li> <li>- I need to use more details and be sure they are accurate.</li> </ul>	<ul style="list-style-type: none"> <li>- My writing needs to be focused and organized.</li> <li>- I need to write more and include more accurate details.</li> </ul>	<ul style="list-style-type: none"> <li>- A written explanation was not included or did not address the given prompt.</li> </ul>
<b>Neatness and Quality</b>	<ul style="list-style-type: none"> <li>- Illustrations are neat, clear, and accurately display the intended information.</li> <li>- Written explanation is typed and contains few errors that do not detract from meaning.</li> </ul>	<ul style="list-style-type: none"> <li>- Illustrations are neat and display the intended information with very few mistakes.</li> <li>- Written explanation is typed and contains some errors that do not detract from meaning.</li> </ul>	<ul style="list-style-type: none"> <li>- Illustrations are slightly messy, unclear, or have some mistakes in the intended information.</li> <li>- Written explanation is typed and contains many errors that detract little from meaning.</li> </ul>	<ul style="list-style-type: none"> <li>- Illustrations are very messy, irrelevant, or do not accurately display the intended information.</li> <li>- Written explanation is typed and contains significant errors that greatly impact meaning.</li> </ul>	<ul style="list-style-type: none"> <li>- Illustrations are not included or cannot be identified in relation to the content.</li> <li>- Written explanation is not typed or is unable to be understood due to spelling and grammar errors.</li> </ul>

\* This rubric is based on the Extended Constructed Response Framework developed by the Colorado Department of Education.

Vocabulary Word:	Example:
	Non-example:
Definition:	In a picture:
In my words:	

Vocabulary Word:	Example:
	Non-example:
Definition:	In a picture:
In my words:	

1

$\frac{1}{2}$

$\frac{1}{2}$

$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{3}$

$\frac{1}{3}$

$\frac{2}{3}$

$\frac{1}{3}$



$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
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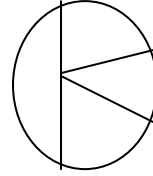
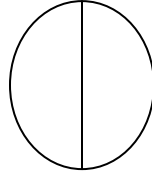
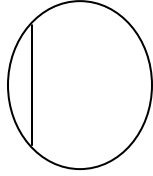
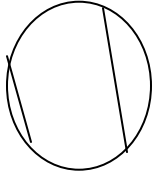
$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
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$\frac{1}{4}$	$\frac{1}{4}$
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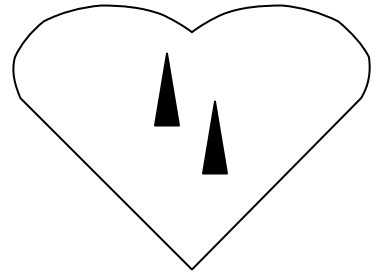
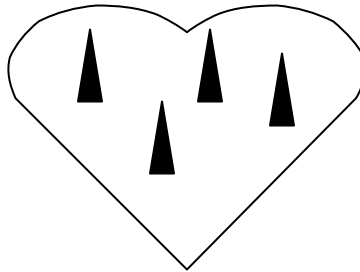
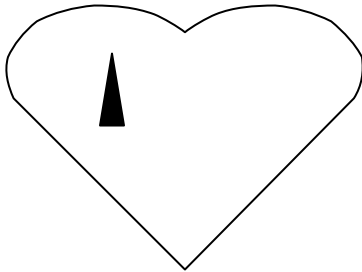
$\frac{1}{4}$
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# Fractions Quiz 1

1. Please circle the shape that is split into EQUAL parts.



2. Is this group split into EQUAL or UNEQUAL parts?



---

3. Color the numerator orange.

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

4. Color the denominator green.

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

5. What is a fraction? (in your own words)

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## Fractions Quiz 2

1. When we split something in half, how many groups are there? \_\_\_\_\_

2. Shade  $\frac{1}{2}$  of this object.

3. Find the fraction for this shape.

4. Color  $\frac{1}{2}$  of the bugs in this picture.

5. Suzie baked 12 cookies. She gave  $\frac{1}{2}$  to me and ate the other  $\frac{1}{2}$  herself. How many cookies did Suzie eat? Please draw a picture and write the number of your answer.

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6. What fraction of the mice are white?

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7. When something is split into quarters, how many equal pieces will there be?

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8. Draw this object split into quarters.

9. Find the fraction for this picture.

10. There are 12 bananas and 4 monkeys. If each monkey gets an equal share of the bananas, how many bananas will each monkey get? Draw a picture and write the number of your answer.

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# Fractions Quiz 3

1. When we split something in tenths, how many groups are there? \_\_\_\_\_

2. Shade  $\frac{2}{3}$  of this object.

3. Find the fraction for this shape.

4. Color  $\frac{4}{10}$  of the candy in this picture.

5. Patrick baked 9 brownies. He gave  $\frac{2}{3}$  to Ms. Kilday and ate the other  $\frac{1}{3}$  by himself. How many brownies did Ms. Kilday get? Please draw a picture and write the number of your answer.

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6. What fraction of the shoes are shaded?

7. When something is split into thirds, how many equal pieces will there be?

8. Draw this object split into thirds.

9. Find the fraction for this picture.

10. There are 30 pennies and 10 students. If each student gets an equal share of the pennies, how many pennies will each student get? Draw a picture and write the number of your answer.

