

▶ Pizza Parts!



Pizza Parts!

by Linda Bussell



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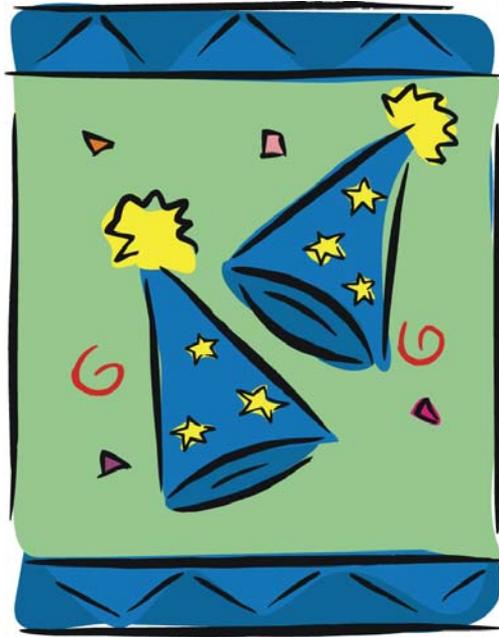
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Chapter 1: Elena's Birthday Plans



Elena is excited! Today is her birthday. She is going to have a party. She is happy to celebrate her special day with friends and family.

Her family owns a pizza parlor. They serve pizza and other food. Elena loves to go there after school. It always smells so good! Her mom and dad both work there. They tell Elena that she can bring her friends to the pizza parlor. She can bring them after school on her birthday.



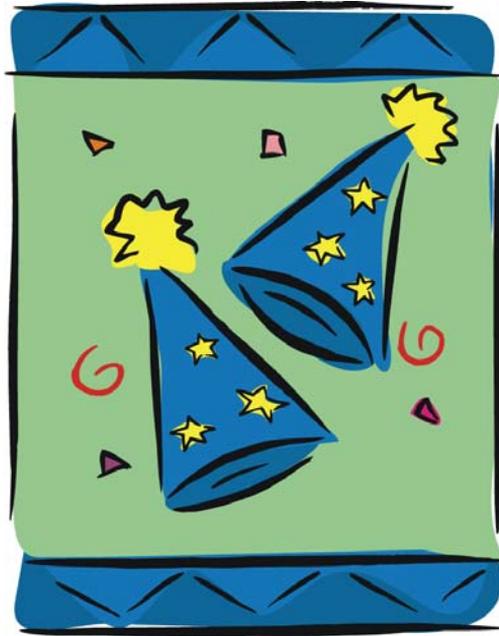
▶ Elena's family and friends celebrated her birthday at the pizza parlor.

▶ Elena goes to the pizza parlor with her friends. She is surprised that the restaurant is dark when she first opens the door.

Suddenly the room lights up. Her whole family shouts, "Happy Birthday, Elena!"

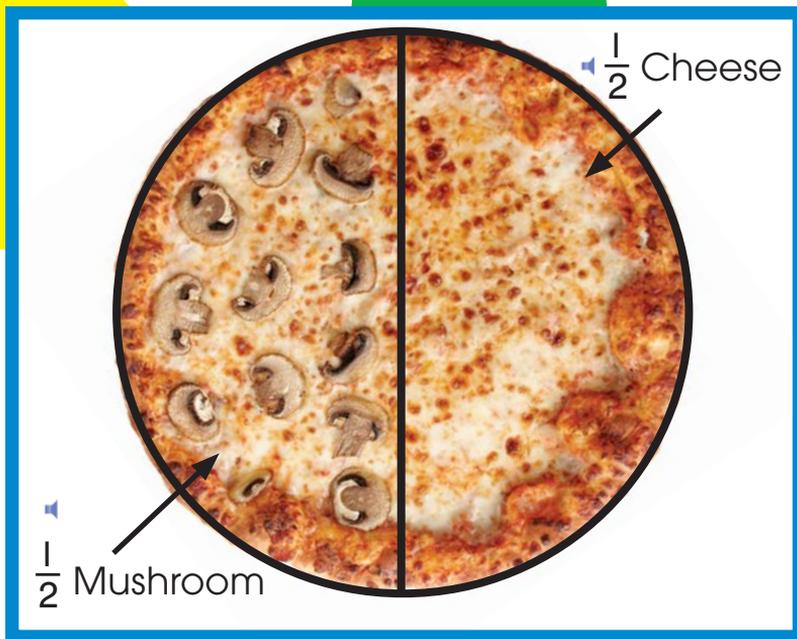
▶ Elena's family has decorated the restaurant for her birthday. Balloons and streamers hang from the ceiling. There is a giant *Happy Birthday* sign hanging over a big table. Elena's little brother Dante says he helped make the sign. Elena gives him a big hug.

Chapter 2: Pizza Fractions



▶ Elena smiles as she invites her friends to sit at the big table. She invited 14 friends to her party. Elena's father says they may order any kind of pizza they want. They read their menus. There are so many kinds of pizza it is hard to decide!

▶ Elena and her friends talk about what they want to eat. They decide to order in small groups. That way, they all can have the kind of pizza they want.



One half is written as $\frac{1}{2}$.

Sophia and Priya want a small pizza that is one-half cheese and one-half mushroom.

Elena's father writes, "**Small pizza $\frac{1}{2}$ cheese + $\frac{1}{2}$ mushroom**" on his notepad.

He says, " $\frac{1}{2}$ is how we write *one half*. The number below the line tells the total number of equal parts the pizza has been divided into. The number above the line tells how many of the equal parts we are talking about."

Priya says, "One of two equal parts has mushrooms."

The pizza will be one-half cheese and one-half mushroom.

1	Numerator (number of equal parts we are talking about)
2	Denominator (the number of equal parts in the whole)

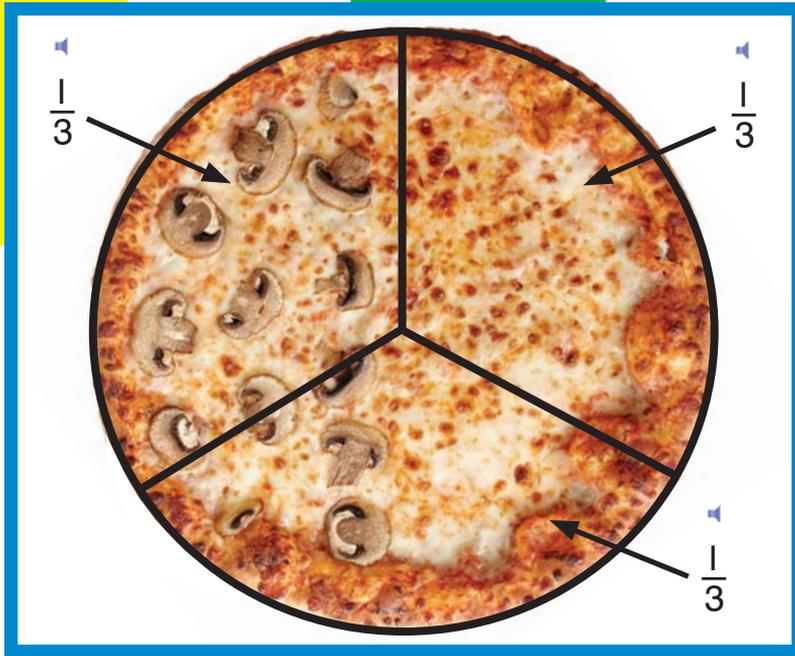
▶ The top and bottom parts of a fraction have special names.

▶ “Parts of fractions have special names,” says Sophia. “The number above the line is called the *numerator*.”

▶ Priya adds, “The number below the line is called the *denominator*. In the fraction $\frac{1}{2}$, 1 is the numerator, and 2 is the denominator.”

▶ Dylan listens to Priya and Sophia. He asks, “Are you going to eat that whole pizza? I like both cheese and mushrooms on my pizza!”

▶ Priya and Sophia say they will have enough to share with Dylan.



▶ Priya, Dylan, and Sophia use fractions to divide their pizza into equal shares.

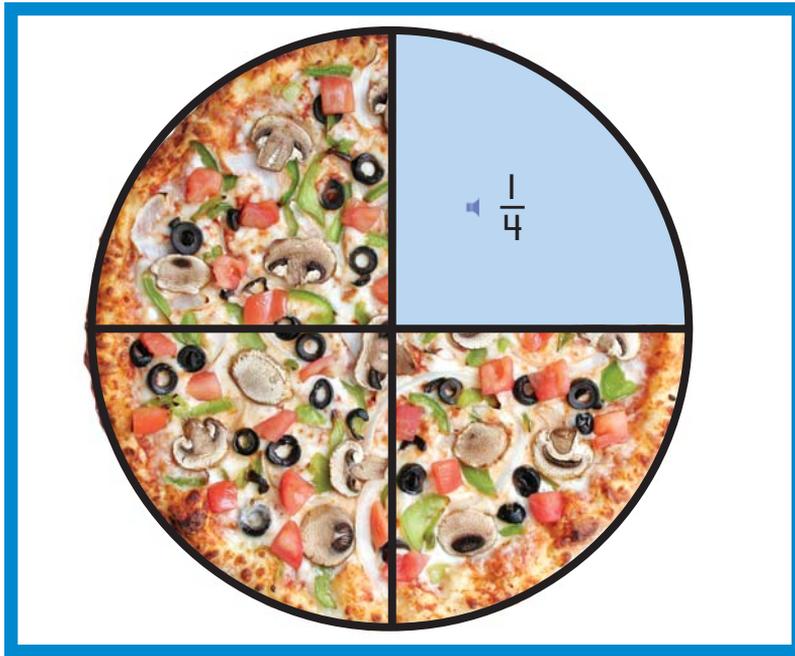
▶▶ Sophia wonders, “How can we share the pizza so that we each get the same amount?”

▶▶ “We can use fractions,” replies Priya.

Dylan says, “We can divide the pizza into thirds. We will each have one third.”

▶▶ Elena’s father says, “ $\frac{1}{3}$ is how we write the fraction *one third*. It means one part out of three equal parts.”

▶▶ “Sophia and I will have $\frac{2}{3}$ of the pizza,” says Priya. “The three of us will have $\frac{3}{3}$ of the pizza!”



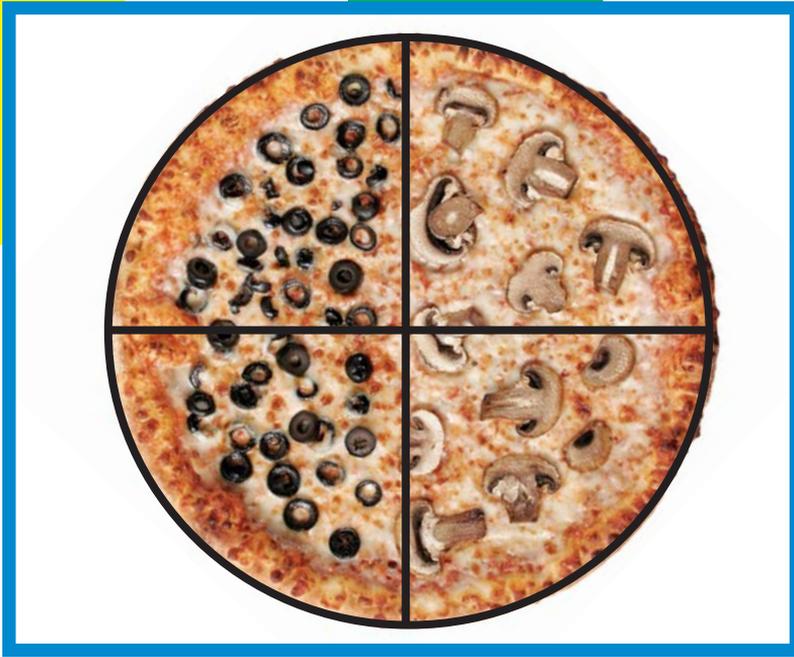
▶ $\frac{1}{4}$ is one of four equal parts.

▶▶ The next group is ready to order. Eduardo, Kelly, Lexi, and Seth want to share a medium pizza. All of them like vegetables. Seth asks, "How can we share our pizza equally?"

▶▶ Lexi says, "We can divide the pizza into fourths. This means we divide the pizza into four equal parts. One share of the pizza is one fourth."

▶▶ "One fourth is also written $\frac{1}{4}$. One fourth means one part out of four equal parts," says Elena's father.

▶▶ "We will each have one fourth of the vegetable pizza," says Kelly.



Two people can share $\frac{1}{2}$ of this pizza equally.

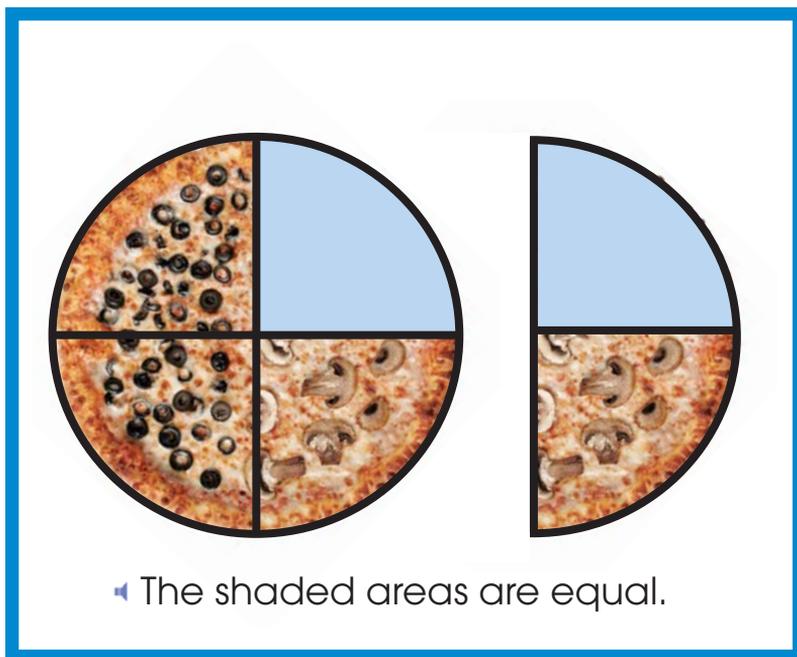
Four more friends place their order. They want to share a large pizza. Elena and Thuy want olives on their pizza. They do not want mushrooms. Melissa and Logan want mushrooms, but not olives.

Melissa asks, "How can we all get what we want?"

Elena says, "We can order a pizza with $\frac{1}{2}$ olives and $\frac{1}{2}$ mushrooms."

"Thuy and I can share the olive half equally," says Elena. "Melissa and Logan can share the mushroom half equally."

"We each will get the same amount of pizza," says Thuy.



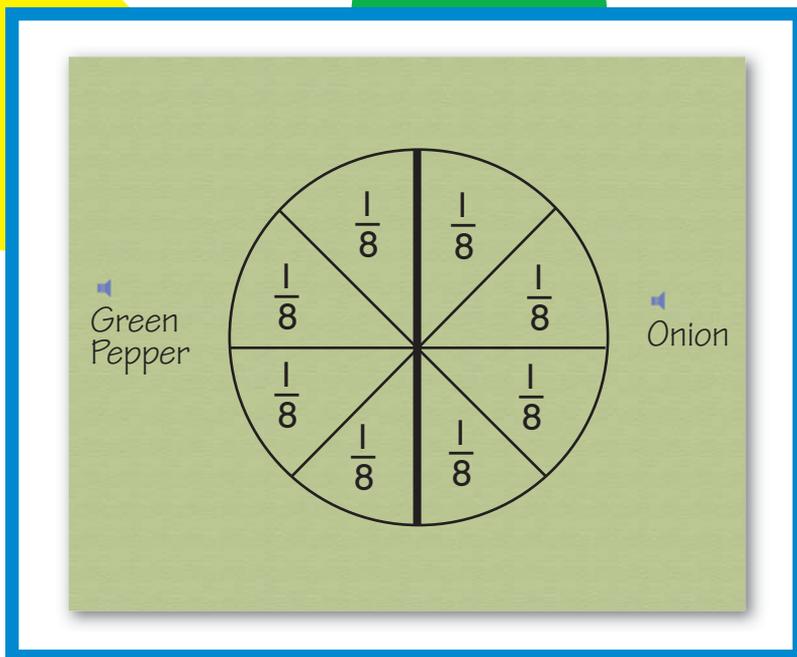
▶ $\frac{2}{4}$ is the same as $\frac{1}{2}$.

▶▶ Logan says, “Melissa and I will share $\frac{1}{2}$ of the pizza. The pizza will be cut into fourths. Melissa and I will share $\frac{2}{4}$. We will each have $\frac{1}{4}$ of the pizza!”

▶▶ Melissa says, “I can see that $\frac{2}{4}$ is the same amount as $\frac{1}{2}$ of the pizza.”

▶▶ Elena’s father says, “That’s right! I will bring you a pizza with $\frac{1}{2}$ olives and $\frac{1}{2}$ mushrooms. You will each have $\frac{1}{4}$ of the whole pizza.”

▶▶ “We all will get the kind of pizza we want,” says Thuy.



▶ $\frac{1}{8}$ is one of 8 equal parts.

▶▶ Four other friends want to order some green pepper pizza and some onion pizza.

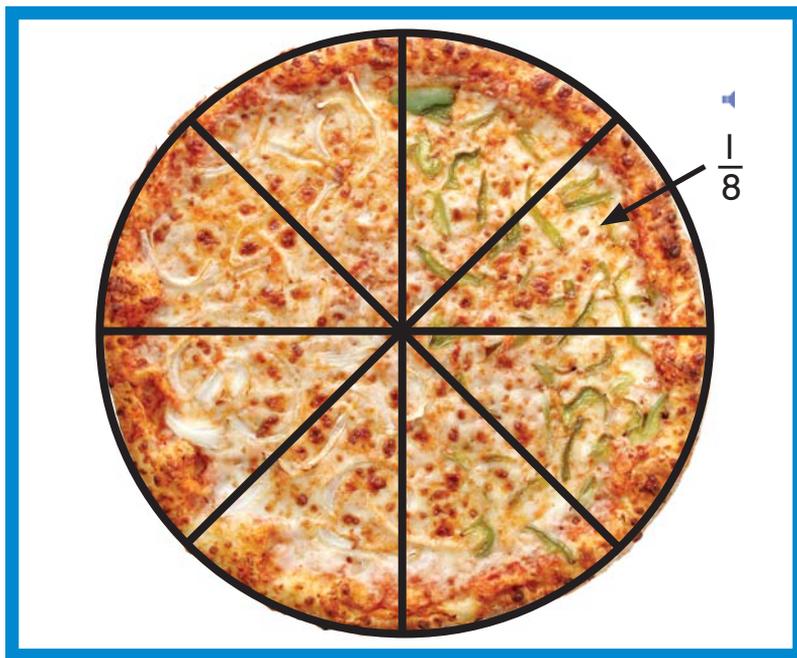
▶▶ Evan says, "We can order a pizza that is $\frac{1}{2}$ green pepper and $\frac{1}{2}$ onion. But how can we share it equally?"

▶▶ Daniela draws a circle on her napkin. She divides the circle in half.

"Now I will divide the circle into four equal parts," she says.

▶▶ Then she divides the circle again and again. Now the circle is divided into eight equal parts.

▶▶ Daniela says, "We can divide the pizza into eighths, or eight equal parts."



▶ $\frac{2}{8}$ is the same as $\frac{1}{4}$.

▶ “One piece of the pizza is one eighth,” says Hannah.

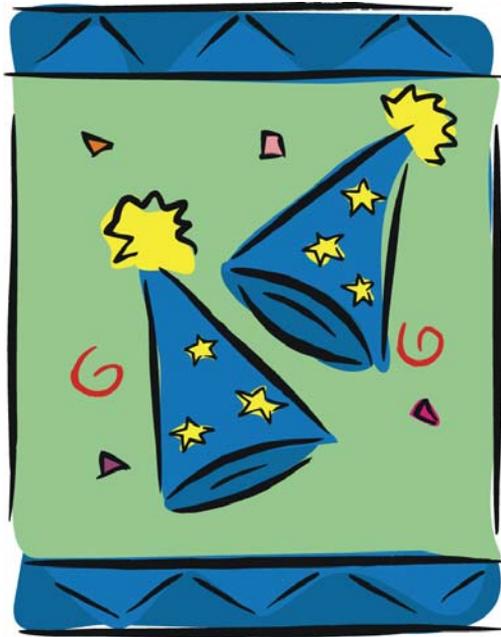
▶ Daniela writes $\frac{1}{8}$ on her napkin. “*One eighth* means one part of eight equal parts,” she says.

▶ “We can cut the pizza into eight equal slices. There will be four slices with green peppers and four slices with onions,” says Daniela. “That is enough for each of us to have what we want.”

▶ Elena’s father takes their order. He will cut their pizza into eighths.

Evan points to Daniela’s drawing. He says, “ $\frac{2}{8}$ is the same as $\frac{1}{4}$ of the pizza.”

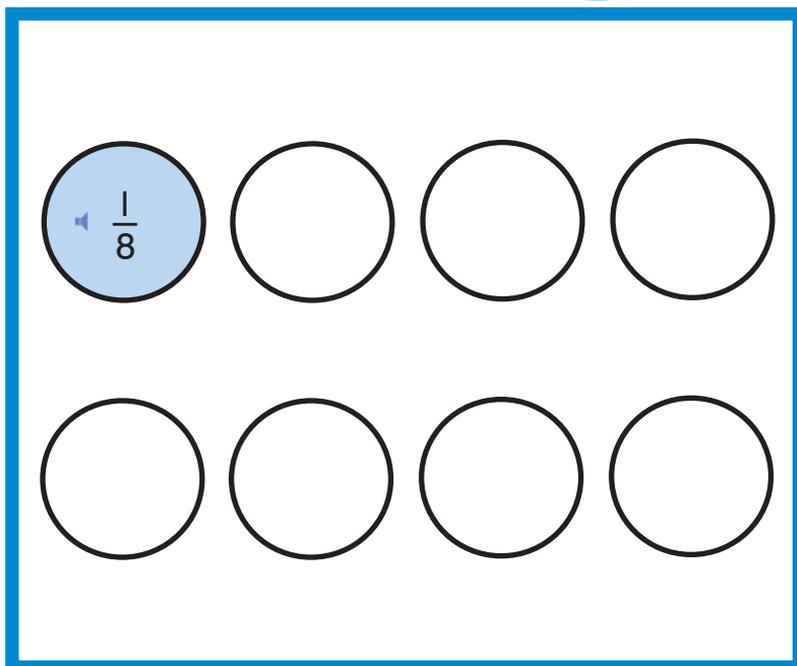
Chapter 3: Party Fractions



Now everyone has ordered pizza. They are ready to eat when Elena's father and mother bring the food to the table. It is quiet while they enjoy the tasty pizza.

Soon everyone is talking again. They ate all the delicious pizza, and they all received the kind of pizza they wanted.

Now, it is time for games, and the 16 friends divide into teams of four. Dante says, "I am $\frac{1}{4}$ of my team." He is right! There are four people on each team. One person is $\frac{1}{4}$ of the whole team.



▶ **Fractions can name a part of a whole. They also can name a part of a group.**

▶▶ Elena's father says that fractions are used to name a part of a whole, like a slice of pizza. Fractions can also name a part of a group, like one person on a team.

▶▶ Elena's friends laugh. None of them had ever been called a fraction before!

▶▶ Next, the friends make new teams to play pretend animals. They will play with two teams. Eight people are on each team. Each person is $\frac{1}{8}$ of a whole team.

▶▶ They take turns acting like different animals. Soon all the guests are laughing with each other!



▶ Elena had a wonderful birthday with her family and friends.

▶ It is almost time for everyone to go home. Elena's friends ask if they may help clean up. They put the pizza pans and dishes on a cart. Elena's father takes the cart to the kitchen. Everything is put away in no time.

▶ Now it is time to say good-bye. Elena has had a great birthday! Her family and friends have had a good time at the celebration.

▶ Elena thanks each guest for coming to her party. The guests thank Elena and her family for a wonderful time.

Glossary

-  **denominator** the part of a fraction below the line, which tells how many equal parts there are in the whole or in the group.
-  **eighth** one of eight equal parts
-  **fourth** one of four equal parts
-  **fraction** a number that names part of a whole or part of a group
-  **half** one of two equal parts
-  **numerator** the part of a fraction above the line, which tells how many parts are being counted.
-  **third** one of three equal parts

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Think and Respond

-  1. Draw a pizza. Divide it into four equal parts. Shade three of the parts. Write the fraction that names the shaded part.
-  2. Draw a pizza. Divide it into eight equal parts. Shade three of the parts. Write the fraction that names the part that is not shaded.
-  3. Think about two pizzas that are the same size. One pizza is divided into two equal parts. The other pizza is divided into three equal parts. Which pizza has bigger pieces?



4. Write a story about how you and two friends might order and divide a pizza into equal parts. Then draw a picture of the pizza. Divide the pizza into equal parts and write the fraction for each part.