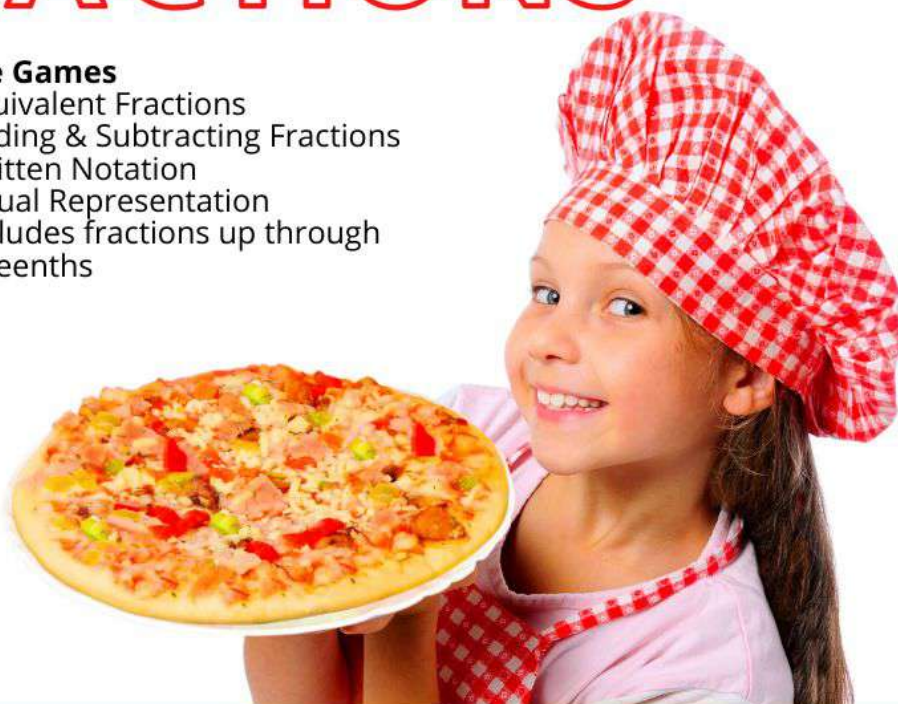


Pizza FRACTIONS

Three Games

- Equivalent Fractions
- Adding & Subtracting Fractions
- Written Notation
- Visual Representation
- Includes fractions up through fifteenths



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Thank you for downloading these fun fractions games! I hope that your kiddos will find them an enjoyable way to practice this critical concept. I always tell my kids that the denominator tells you what size pieces you are dealing with and the numerator tells you how many of them you have.

As I was playing these games with my children last week, my college-attending, 17-year-old daughter jumped in and joined us. My 6-year-old needed some help knowing where to play her pieces and as I explained that denominators should be factors and/or multiples of each other within a pizza, my older daughter exclaimed excitedly that she had just realized something. I have to admit that even as a mechanical engineer with a whole lot of math under my belt, I still make valuable connections while playing math games.

If you have any questions concerning this product, please don't hesitate to contact me! Amy Saunders at Amy@OrisonOrchards.com. Check out my [shop at OrisonOrchards.com](http://shop.at.OrisonOrchards.com) for more engaging math games and resources!

Have fun playing math!

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This file includes everything you need to play these three games:

1. Piece-A-Pizza
2. Add a Slice
3. Fishing for Fractions

Required Materials

- Dice (just to determine the first player)
- Printables from this file

Getting Ready

- Printing this file: You may print the pizzas labeled with the fractions back to back with the unlabeled pizzas (Must be sure to feed them through your printer the same direction so they match on both sides) or you may just print the side labeled with the fractions. It's up to you. I prefer ours 2-sided so we can use the non-labeled side for other activities.
- Print all 13 pizzas (one each), cut apart into their pieces (print on cardstock, laminate before cutting, use a paper cutter and cut right down the middle of two slices so each piece is bordered by white)
- Print duplicates of the thirds, fourths, fifths, sixths, sevenths and eighths denominators pizzas (one each -- laminated and cut apart) if desired for the easy version of 'Fishing for Fractions'.
- Cut the pizza slices apart with a single cut down the middle of the white line, leaving a narrow white border around each slice (on the side labeled with fractions) for the best aesthetics.
- Print one set of the cards. I print them on cardstock and don't laminate it, but you may want to laminate for improved durability. You would want to laminate before cutting.

Piece-A Pizza

This fun game for 2+ players will have your kids begging for more. It's so much fun they'll hardly notice they're learning and practicing fractions! They will be pros at equivalent fractions before this game is through.

Play this game with the pizzas label-side-up (the fractions are the labels) for an easier game, or label-side-down for a more difficult game.

Setup

- Place all 13 pizzas (fully assembled) on the table between the players.
- Shuffle the deck of cards and deal each player 3 cards.
- Place remaining cards, face down, on the table between players. This is your draw pile. As play progresses, players will create a discard pile alongside the draw pile.

- Roll a die to see who goes first.

Instructions

1. Play begins with the player who rolled the highest number and continues clockwise around the table.
2. Each player should have three cards. Players hold their cards so only the player can see them and may choose which card to play.
3. Cards consist of two different types of cards: fraction cards and word cards.
4. The first player plays his card onto the table (creating the discard pile), takes the corresponding piece of pizza or its equivalent, draws a card (from the draw pile) to replace the one he played, and play continues to his left. For example, if he plays a $\frac{1}{4}$ fraction card, he may take one slice of pizza from the fourths pizza or two slices from the eighths pizza. If he plays a $\frac{2}{4}$ fraction card, he may choose to take 2 slices from the fourths pizza or 1 slice from the $\frac{1}{2}$ pizza or 4 slices from the $\frac{1}{8}$ pizza. Players may always take their choice of equivalent fractions.
5. Players should always have 3 cards in their hands. Anytime a card is played it should be replaced from the draw pile. If multiple cards are played, they should all be replaced.
6. Players may discard cards they don't want onto the discard pile during a turn, but it will count as a turn. Player will then replace them from the draw pile.
7. Players may trade pizza slices with other players at any point during the games, but they may only trade equivalent fractions ($\frac{1}{4}$ for $\frac{2}{8}$ or $\frac{3}{12}$) and both players must agree to the trade.
8. When you play a Wild card or another word card, just follow the directions on the the card. Trades from word cards do NOT have to be equivalent fractions. The 'FRACTION SUM' cards allow players to play all three cards in their hand together. Be sure to always replace cards that are played.
9. Pizzas do NOT have to be all one denominator, they just have to add up to a whole. For example, a pizza with $\frac{1}{2}$ slice, $\frac{1}{4}$ slice and two $\frac{1}{8}$ slices is considered a whole pizza and will earn a player 16 points at the end of the game (1 point per piece plus 12 points for a whole pizza).
10. Once a player completes a pizza, those slices are off limits to other players. They cannot be taken or traded in any way.
11. Play ends when all of the pizza slices have been claimed. At this point, no more trades can take place. It's time to add up scores!

Scoring Players earn 1 point for each slice of pizza in their possession when the game ends. Players earn an additional 12 points for each complete pizza. The player with the most points wins.

Add A Slice

This game is all about adding and subtracting fractions. In this game, players cooperate to complete whole pizzas.

1. Set aside the whole pizza and “shuffle” the remaining slices.
2. Deal each player 3 pieces of pizza, which the player can look at but should keep secret from the other players.
3. The remaining slices go in a “draw pile”, located in a paper sack or something opaque.
4. The youngest player starts the game by placing one of his pizza slices in the middle of the table and announcing the “value” of the pizza, then drawing a new slice from the draw pile. The value of the pizza is the sum of all the fractions contained therein. Players should always have three slices in their hands.
5. Play proceeds to the left.
6. The next player adds a slice to the pizza (if he can -- if he has denominators that work together -- otherwise he starts a new pizza), announces the new value of the pizza (the sum of the fractions of all the pieces in that pizza), then draws a replacement slice from the draw pile. For example, if the first player laid down a $\frac{1}{9}$ slice and announces, “ $\frac{1}{9}$ ”, then the second player lays down a $\frac{1}{3}$ slice, and announces, “ $\frac{4}{9}$ ”. Players keep adding the value of the pizza as they add the value of their own slice to the previous value of the pizza.
7. Players just announce the new value of the pizza to which they are contributing.
8. When a person completes a pizza (point out to your kids that the numerator and denominator match), he gets to take it.
9. Players must play each turn. If the player doesn’t have a piece that fits in the current pizzas being built, player may start a new pizza. Games may have multiple pizzas being built at once. Players may not start new pizzas in order to avoid another player completing a pizza.
10. The game is over when the draw pile is empty.
11. The winner is the player with the most pizzas.

Fishing for Fractions

This game is excellent for learning to recognize fractions, equivalent fractions and realize what the numerators and denominators represent. I always tell my kids the numerator tells you how many you have and the denominator tells you what size it is. Remove the whole pizza before playing.

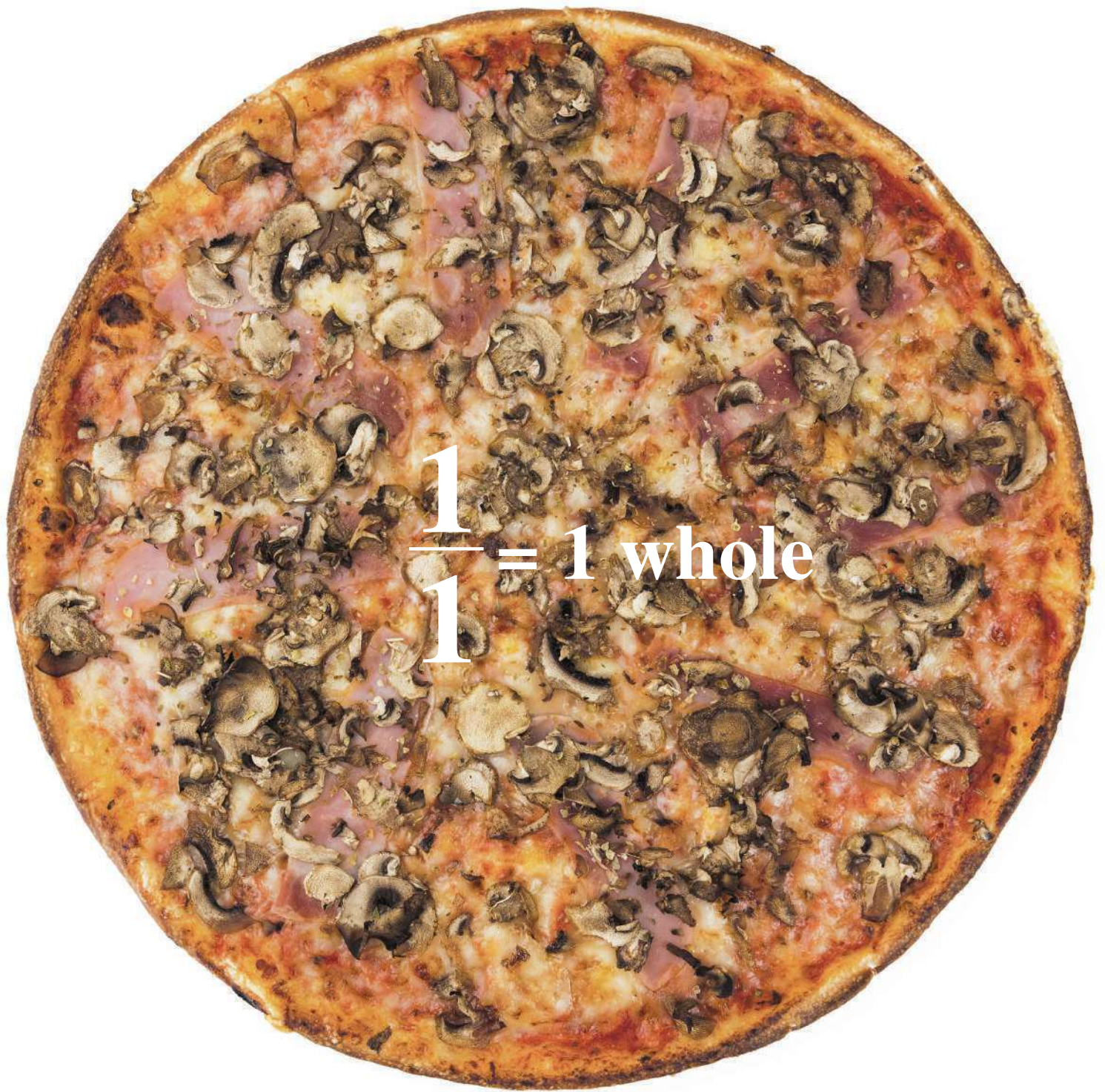
This game can be played on two levels. The more difficult version is played with the twelve pizzas from the original file (don't use the whole pizza) according to the directions below.

The easier version is played by removing the fifteenths, fourteenths and twelfths, and printing and using an extra thirds, fourths, fifths, sixths, sevenths and eighths pizza of each denominator. I print and laminate these and keep them in a separate zippered bag just for this game so I don't have to separate out all the pieces beforehand.

1. In this game, the pizza slices themselves are the cards. Do not use the whole pizza.
2. Shuffle the pizza slices as best you can -- just enough so kids don't get all the same denominator.
3. Deal each player ten pizza slices.
4. The remaining pizza slices are placed in a paper bag (or anything opaque).
5. Players may look at their own cards, but should keep them secret from the other players.
6. The objective is to create entire pizzas. The completed pizzas do not need to be the same denominator.
7. Whenever a player has accumulated the slices for an entire pizza, he may go ahead and assemble it on the table in front of him. The cards are out of play at that point. No other player may request them.
8. When a player lays down a pizza, he draws enough cards to replace them. For example, if he lays down a pizza with four slices, he draws four new cards from the paper bag.
9. The youngest player goes first and asks any player, "_____, do you have a (name a fraction)?" If that player has that fraction, he MUST hand it over. If he doesn't, he tells the player who asked to, "GO Fish."
10. The player who asked "fishes" a card from the paper bag without looking.
11. Play continues to the left.
12. The game ends when the paper bag (the draw pile) is empty. At that point, players look through their hands and assemble their remaining pieces into as complete as possible pizzas. Partial pizzas will count toward the final score.

13. The player to complete the most pizzas (including fractions of pizzas) wins. Partial pizzas should be added into the total. For example, if one player has a whole pizza, $\frac{1}{2}$ of a pizza and $\frac{5}{7}$ of a pizza, his final score is 2 and $\frac{3}{14}$. Everyone should name their final score as a mixed fraction. The player with the highest score wins.













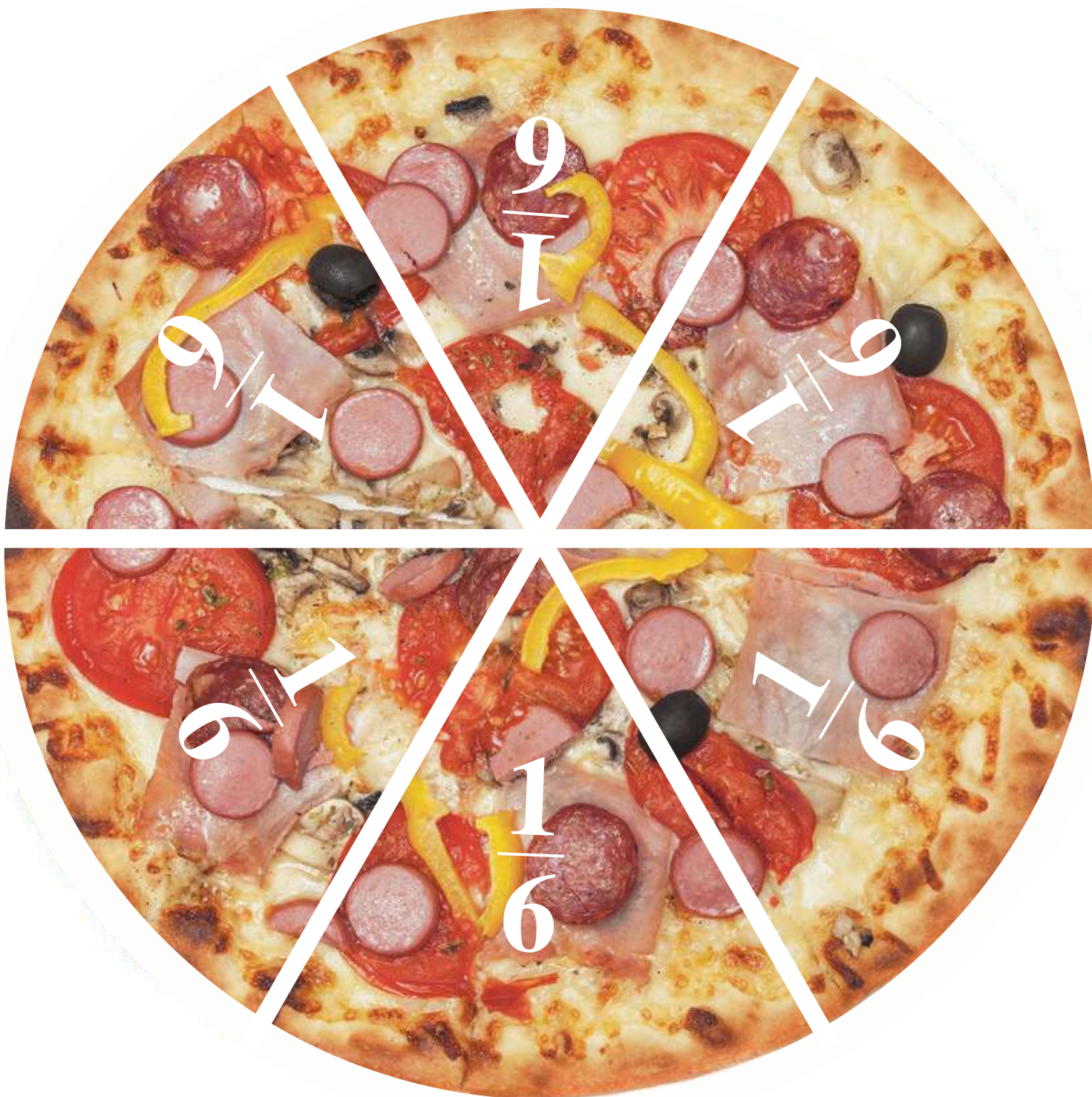




















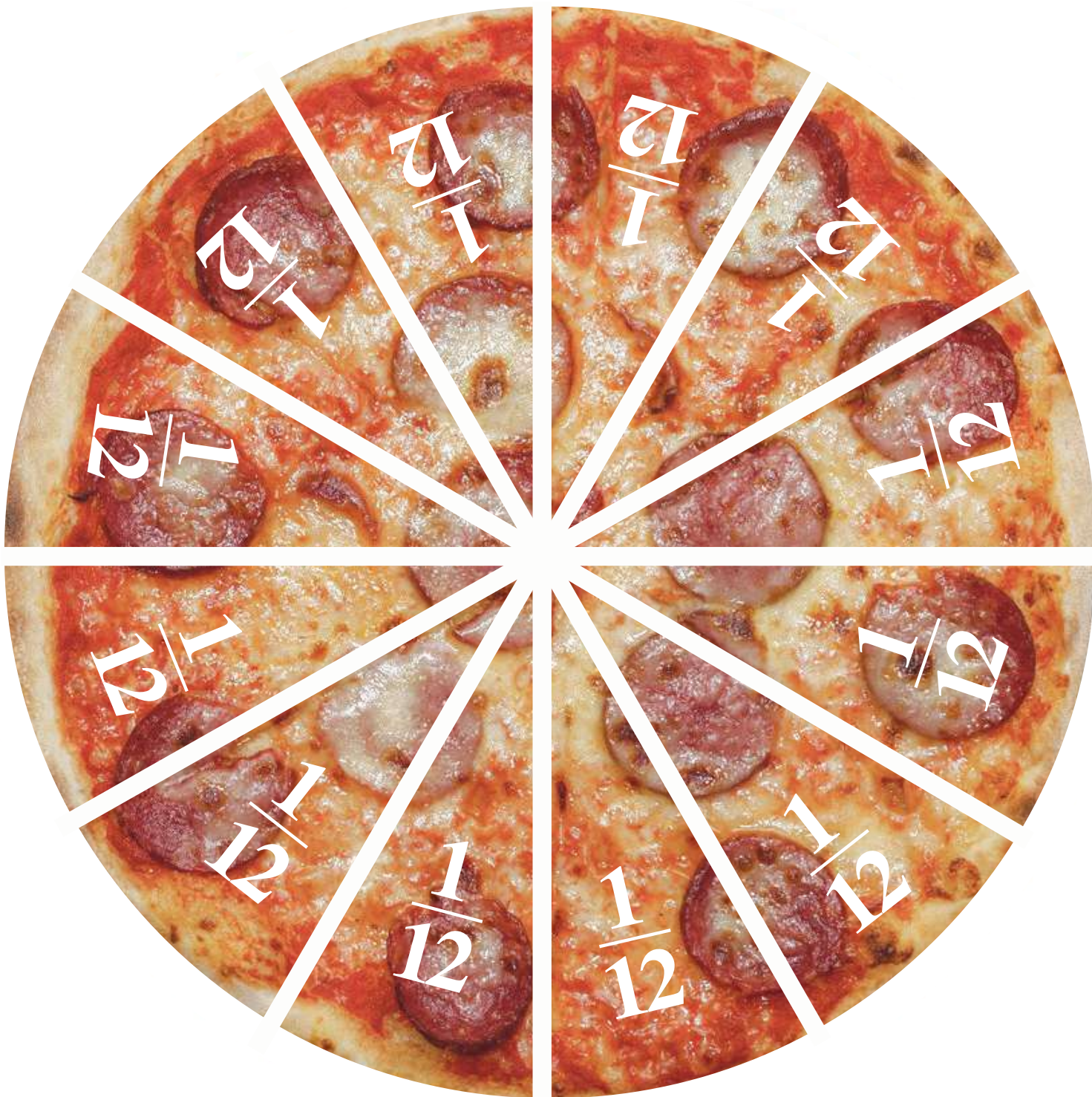




















$$\frac{2}{14}$$

$$\frac{2}{10}$$

$$\frac{1}{8}$$

$$\frac{1}{6}$$

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

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WILD CARD
Choose any
pizza slice you
want from the
middle.

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Trade a piece with another player. You choose the piece you take from him and the piece you give him.

Take a piece from another player -- any player, any piece, but just one.

Take a piece from another player -- any player, any piece, but just one.

FRACTION SUM
You may play all three cards in your hand at once (this plus the two fraction cards) if you can add the fractions. Then take your pizza slices and replace all 3 cards from the draw pile.

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