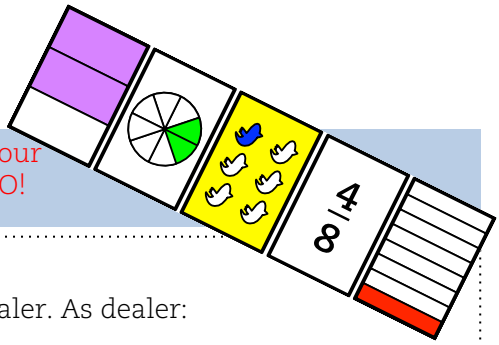
FRAC-O



In this strategic game for 2 to 6 players, get your fractions in order to be the first to yell FRAC-O!

Strands:

Number & Quantity	X
Algebra	
Functions	
Geometry	
Statistics & Probability	

Materials Needed:
- *Fraction* cards
- *FRAC-O* gameboards
- Fraction manipulatives (optional)
- Racko game racks (optional)

Where:

Outside	
Inside	X
On-line	
On-site	

Set-Up:
- The player with the longest hair is the dealer. As dealer:
  - Shuffle the cards.
  - Deal five cards to each player onto each player's FRAC-O gameboard.
  - Stack the remaining cards in the center of the table.
  - Flip over the top card of the deck to create a discard pile.
- Players keep the cards in the order they are dealt, left to right.
- Cards can be laid face up on the table or can be kept hidden by each player.
- The player to the left of the dealer goes first.

Object of the Game: Replace cards in your hand with new cards until all the fractions are in numerical order, lowest card on the left and highest card on the right. Interpret numerical, area, and discrete representations of fractions.

On Your Turn:

1. You have two options:
   a. Pick up the top card of the discard pile.
   b. Pick up the top card of the deck.
2. a. Replace any card on your gameboard. Keep the new card in the same location as the one it replaces. Discard 1 card.
   b. Your goal is to make sure you end the game with all fractions in order from lowest value to highest value (left to right), as shown on the number line on the gameboard.
3. The cards with area or discrete fraction representations can be used for either of the fractions represented in white or in color. For example, a card where $\frac{1}{4}$ is shaded and $\frac{3}{4}$ is white can be used as $\frac{1}{4}$ or as $\frac{3}{4}$.
6. The first player to get all five cards in numerical order calls *FRAC-O*.
   a. That player's cards are checked by the player to their right.
   b. If the order is correct, the game ends and scoring begins.
   c. If the cards are not in order, play continues. The player that yelled *FRAC-O* does not continue to play.
8. Scoring is based on how many cards are in order from left to right. A player with all five cards in order earns 25 points (5 points for each correctly placed card). Other players' cards are scored depending on the greatest number of consecutive cards that are in order; players earn 5 points for each card in order from left to right. If the center card is lower in value than the card before it but all other cards are in order, the player earns 10 points because the greatest number of consecutive cards in order is 2. The remaining cards are not scored.

To Win: The first player who gets five cards in numerical order wins.

Think About It:

1. What do you notice is similar among the smallest fractions? What about the largest fractions?
2. How can you tell when one fraction is greater than another? How can you tell when one fraction is less than another?

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Variations:

Fewer Representations: Remove a set of fraction representations to make it harder to obtain the card values each player needs.

Order More or Less: Deal 7 cards to each player to increase the challenge. Deal 3 cards to each player to make it easier to get cards in order.

Hidden Hand: Play with fewer cards and without revealing your hand to other players. Hiding what fractions are already being held by others makes it harder to know what fractions are available for your hand. Do not change the order of the cards you are holding, however!

Helpful Hints:

- What can you do to a fraction to help you compare it with another fraction?
- To help you visualize how the value of the fractions compare with each other, use fraction materials during the game. Use the materials to check your understanding and verify whether your ideas are correct.

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