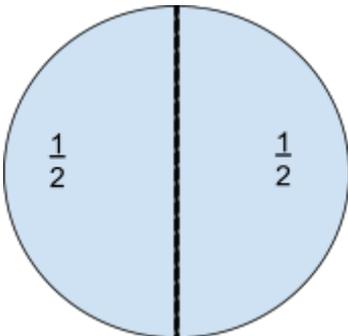


FRACTIONS FIRST!

Level	3 (Age group 12-14)
Resources Required	8 paper plates Scissors Pencil and paper
Alternate Options for the Resources	To make a paper plate, players can: <ol style="list-style-type: none"> 1. Take a sheet of paper 2. Trace a circular object onto the paper (the mouth of a bowl or ceramic plate) 3. Cut out the circle, repeat up to 8 times per player.
Strand Covered	Numbers and Operations
Targeted Skills	Multiplying and dividing Fractions
Inspired by	We are the teachers
Time Required	15 minutes for the game 30 minutes to prepare the game
Previous Learning Required	Knowledge of fractions with different and equal denominators Knowledge on adding fractions
Support Required	Medium support

Rules of the Game:

Goal	To be the first to write up 8 fraction sums that add up to 1
Rules	<ol style="list-style-type: none"> 1. Before a fraction is written, the players must show evidence by piecing together the paper plate fractions 2. This game can accommodate 4-5 players
Steps	<p>Preparation:</p> <ol style="list-style-type: none"> 1. Take the 8 paper plates and cut 2 plates into 2 (halves), 2 plates into 3 (thirds), 2 plates into 4 (quarters) and 2 plates in 8 (eighths). 2. Write on each segment, the fraction that the plate is. For example, if it's a segment from the plate that was cut into 3, write "1/3" on each segment. Example of 1/2: <div style="text-align: center;">  </div> <ol style="list-style-type: none"> 3.

	<p>4. You should have 34 pieces of cut up plates now that are all labelled.</p> <p>The game:</p> <p>Step 1: The players sit in a circle with the pile of paper plate segments in the middle. They each have a sheet of paper and a pencil.</p> <p>Step 2: Players take turns multiplying and dividing any two pieces together. E.g.: player 1 picks up $1/2$ and $1/3$ and divides them to get $3/2$. They get one point for every correct answer.</p> <p>Step 3: Each player plays at least twice alternating between division and multiplication of at least 2 pieces (fractions).</p> <p>Players can choose to do more at a time - for example 3 or 4 fractions. They can also get a bonus if they express their answer in decimal form.</p>
Enrichment	<p>Use more complicated fractions:</p> <p>1) Different unit fractions ($1/7, 1/9, 1/11$)</p> <p>2) Fractions with non-unit numerators and denominators ($2/5, 3/7, \text{etc.}$)</p>
Simplification	<p>1. The first to 5 sums wins</p>