

FRACTURED HOPSCOTCH

Level	3 (Age group 11-14)
Resources Required	Masking Tape (or any colored tape that will be visible on the ground) Whiteboard or Blackboard (if more than 3 players)
Alternate Options for the Resources	If a whiteboard or blackboard is not available and there are more than 3 players, this game should be played on paper. The teacher creates one 2x2 number grids (see Images/Illustrations) per student. Students can play this game by placing their fingers on the grid.
Strand Covered	Numbers and Operations
Targeted Skills	Comparing fractions
Inspired by	Julia Robinson Mathematics Festival - Gordon Hamilton
Time Required	15 min (for game) 20 min (setup)
Previous Learning Required	Knowledge of numbers 1-10 Knowledge of the definition of fraction, numerator, and denominator
Support Required	Low supervision

Rules of the Game:

Goal	The student with the most points at the end of the games wins. If more than one student has the most points at the end of the game, then all students with the most points win.
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Steps	<p>Step 1: The teacher creates a 2x2 grid of numbers on the ground out of masking tape for each student (See Images/Illustrations). The squares in this grid should be large enough for students to place one foot on. Tables and chairs should be moved back away from these grids as students will be jumping and moving during this game. The grids themselves should be spaced apart from one another so that students don't bump into one another during the game.</p> <p>Step 2: The teacher places a number from 1-10 in each square using masking tape (See Images/Illustrations).</p> <p>Step 3: The teacher writes each student's name on a whiteboard or chalkboard that all students can see. If the teacher does not have a whiteboard or chalkboard available to them, then this game should be played with no more than 3 students.</p> <p>Step 4: The teacher assigns each student to one of the 2x2 grids.</p> <p>Step 5: When the teacher says "go," all students jump onto their 2x2 grids so that each foot lands in a different square.</p> <p>Step 6: Students look at the numbers that their feet landed on and make a fraction out of these two numbers. One of these two numbers will be the numerator and one will be the denominator. In this game the numerator must be larger than the denominator.</p> <p>Step 7: Students take turns saying their fractions out loud. The teacher writes down each student's fraction under their name.</p> <p>Step 8: As a class, students decide which fraction is biggest. This student receives one point.</p> <p>Step 9: Repeat Steps 4-7 nine times.</p> <p>Step 10: After 10 rounds, the student with the highest score wins.</p>
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Images or Illustrations	<p>Example 2x2 Grid (the teacher can choose to use different numbers than the ones listed below):</p> <div data-bbox="690 338 1070 716" style="border: 1px solid black; padding: 10px; text-align: center;"><table border="1" style="margin: auto;"><tr><td style="font-size: 2em; font-weight: bold;">1</td><td style="font-size: 2em; font-weight: bold;">6</td></tr><tr><td style="font-size: 2em; font-weight: bold;">7</td><td style="font-size: 2em; font-weight: bold;">3</td></tr></table></div>	1	6	7	3
1	6				
7	3				
Enrichment	<ul style="list-style-type: none">● Use numbers larger than 10 in the 2x2 grid.● Use 3x3 grids instead of 2x2 grids.● Allow students to use either number for the numerator and the number that was not chosen for the denominator. This will allow students to create improper fractions and make the game more challenging.				
Simplification	<ul style="list-style-type: none">● Use numbers only between 1-5.				