Make a Pie!

A Sweet Way to Learn Fractions

2- 3 Players • Ages 5 and up

Chart of Equivalents			
1/2 =	(1/3 + 1/12 + 1/12)	**1/3 =**	(1/4 + 1/12)
	(1/4 + 1/4)		(1/8 + 1/8 + 1/12)
	(1/4 + 1/8 + 1/8)		(1/12 + 1/12 + 1/12 + 1/12)
	(1/4 + 1/12 + 1/12 + 1/12)	**1/4 =**	(1/8 + 1/8)
	(1/8 + 1/8 + 1/8 + 1/8)		(1/12 + 1/12 + 1/12)
	(1/8 + 1/8 + 1/12 + 1/12 + 1/12)	**1/8 =**	(no available equivalents)
	(1/12 + 1/12 + 1/12 + 1/12 + 1/12 + 1/12)	**1/12 =**	(no available equivalents)

The object of *Make a Pie* is to be the player with the greatest number of complete pies when the last pie slice is taken from the "cupboard." Pieces include pie slices that represent halves, thirds, quarters, eighths and twelfths. Think strategically when taking pieces from other players' pies and become familiar with fractions as you play the game.

Helpful Terms:

• **A Stymied Pie:** A pie with a remaining space that cannot be filled with the fractions available. For example, a pie containing 1/2, 1/3 and 1/8 is stymied, because there are no 1/24 pieces in the game to complete the pie. A pie can only be un-stymied when a player "takes a piece" from it, creating a space of a new size.

• **Pie Checker:** A two piece die-cut frame to place around a completed pie in order to make sure a pie is properly finished. A pie checker should fit snugly around a completed pie.

• **Take a Piece:** You may move a piece from any pie on the table (including your own), finished or not, to one of your pies, or you may start a new pie if you like.

1. Place all the pie slices in the box. This is the "pie cupboard". Set aside the semicircle frames to be used as "pie checkers".

2. The youngest player spins first. Take the piece indicated on the spinner from the pie cupboard and place it on the table in front of you. If the spinner lands on "Take a Piece" this first turn, spin again. Play continues clockwise. If a player spins "Take a Piece," follow the instructions under Helpful Terms.

3. You may start a new pie:

- when you spin a fraction larger than the available space in your pie
- when your pie is stymied (see Helpful Terms)
- if you have no incomplete pies.

4. Once a player is making more than one pie at the same time, fractions spun may be added to any of the spinner's pies.

5. If you spin a fraction that is no longer available in the cupboard, take any combination of available pieces that make the equivalent fraction. For example, if you spin 1/2, and both half slices are already taken, take two 1/4s (or a 1/4 and two 1/8s…). A player may benefit from this rule: If you need 1/4 to finish a pie and you spin 1/2, and there is no 1/2 available, you may take two 1/4s, completing the pie with one 1/4 and starting a new pie with the remaining 1/4. A chart of equivalents is printed above.

6. If a fraction is spun that is unavailable and cannot be substituted with equivalent slices, the player spins until getting a fraction that is available. When the last piece is taken from the pie cupboard, the game is over. The player with the greatest number of complete pies is the winner!

Game Extensions

For simplified play to introduce the game to younger players, play the game without 1/3s. When 1/3 is spun, spin again. This guarantees that a pie will not be stymied and greatly simplifies the fractions. When the child is more comfortable with the concepts, try the full game!

Discover equivalents yourself. Without the chart, combine slices to see how many different combinations of slices can make 1/2.