

# Fraction Fill Games

## Fraction Fill 1

The object of this game is to be the first team to earn 6 points by filling 6 circles (unit wholes) with fraction pieces. Points are recorded using number sentences to represent each filled circle. This game is for two teams of two players each.

### Materials

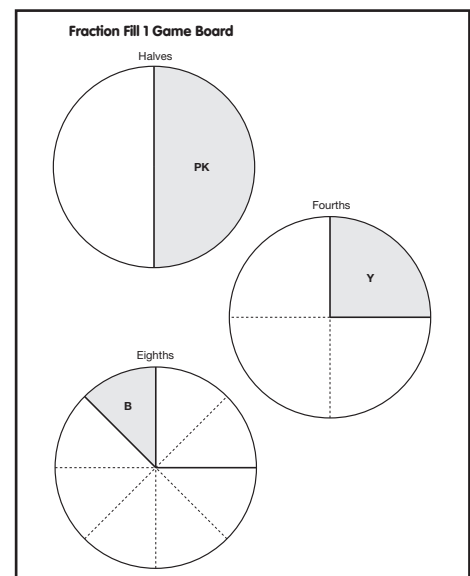
- pink, yellow, and blue circle pieces from two circle pieces sets
- one Fraction Fill 1 Game Board
- Spinner 1 on the *Fraction Games Spinners* pages
- clear plastic spinner or paper clip and pencil

### Directions

1. For this game, the unit whole is the full circle.
2. To begin, place one piece of each color (pink, yellow, and blue) on the Fraction Fill 1 Game Board as shown.
3. The first team spins one time. The team must place a piece or pieces on the game board equal to the fraction shown on the spinner. For example, if a team spins  $\frac{1}{4}$ , they can choose to place either 1 yellow or 2 blue pieces.

The outside edges of the pieces must line up with the lines on the circle. This means that:

- Only pink pieces can go in the lines on the halves circle.
- Only pink and yellow pieces can go on the fourths circle.
- Pink, yellow, and blue pieces can go on the eighths circle.

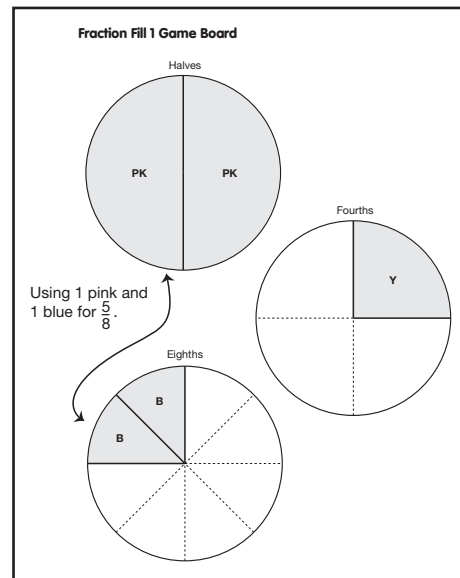
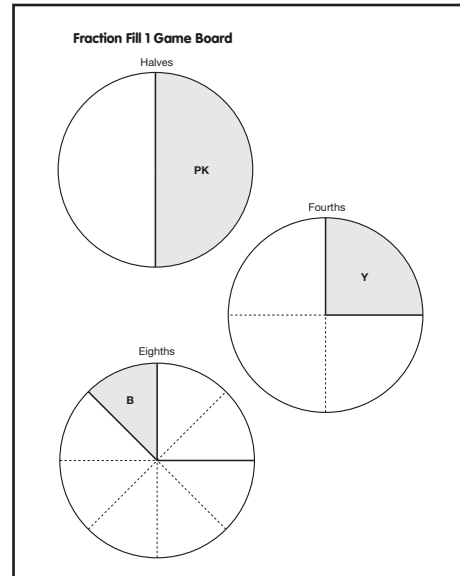


4. Teams earn one point each time they complete a circle. They record their points by writing a number sentence for the completed circle. For example,  $\frac{1}{2} + \frac{1}{2} = 1$  or  $\frac{1}{2} \times 2 = 1$  represents a filled circle. The other team can ask players to explain why a move is correct before a point is recorded.
5. When a team fills a circle, they cannot use that circle again until their next turn. They remove the pieces to reset the circle with one piece, so the circle can be used by the other team.
6. Teams take turns spinning and adding pieces. The first team to earn 6 points wins the game.

**Example:**

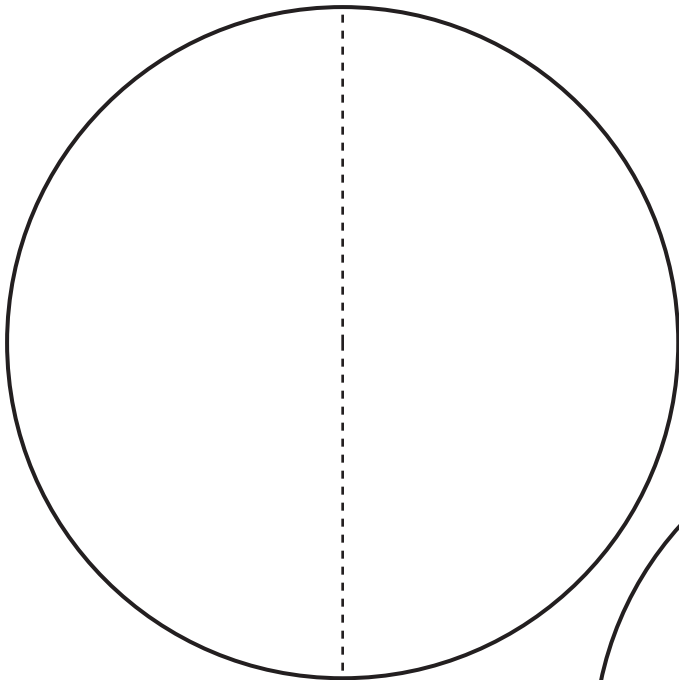
As shown on the sample game boards, Team 1 spins  $\frac{5}{8}$ . They can place 5 blue pieces on the eighths circle. Or, because  $\frac{5}{8}$  is the same as  $\frac{1}{2} + \frac{1}{8}$ , the team can choose to place 1 pink and 1 blue piece on the circles. The pink piece can go on the halves circle and complete a whole to earn a point. The blue piece can go on the eighths circle. To record their point, the team writes  $\frac{1}{2} + \frac{1}{2} = 1$ .

Team 1 takes off the pink piece, so Team 2 can use the halves circle on their turn.

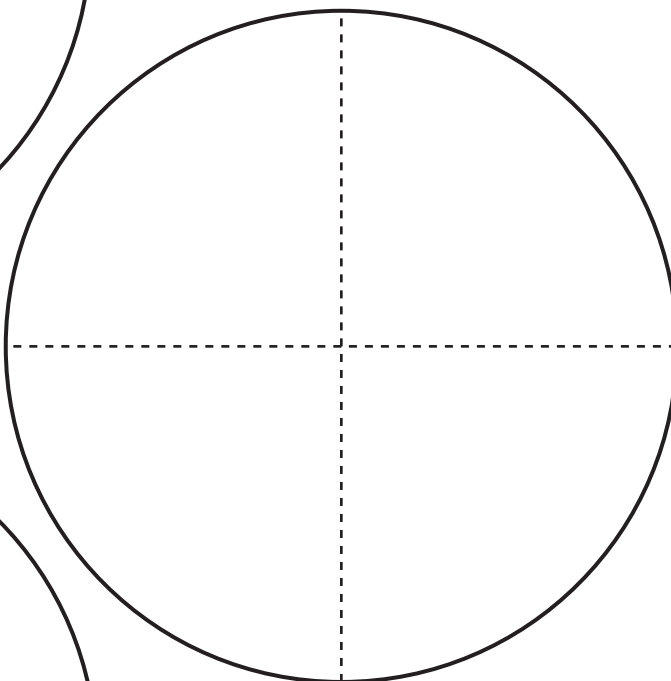


# Fraction Fill 1 Game Board

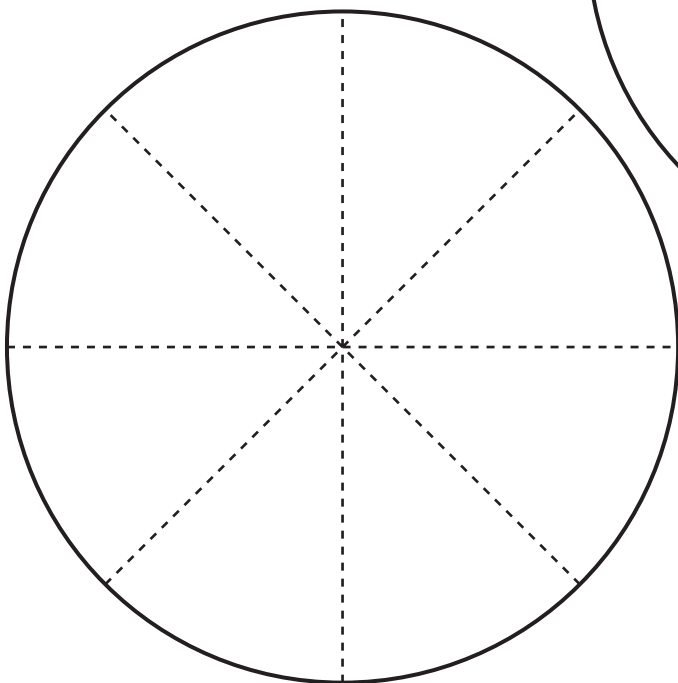
Halves



Fourths



Eighths



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## Fraction Fill 2

The object of this game is to be the first team to earn 6 points by filling 6 circles (unit wholes) with fraction pieces. Points are recorded using number sentences to represent each filled circle. This game is for two teams of two players each.

### Materials

- orange, aqua, and black circle pieces from two circle pieces sets
- one Fraction Fill 2 Game Board
- Spinner 2 on the *Fraction Games Spinners* page
- clear plastic spinner or paper clip and pencil

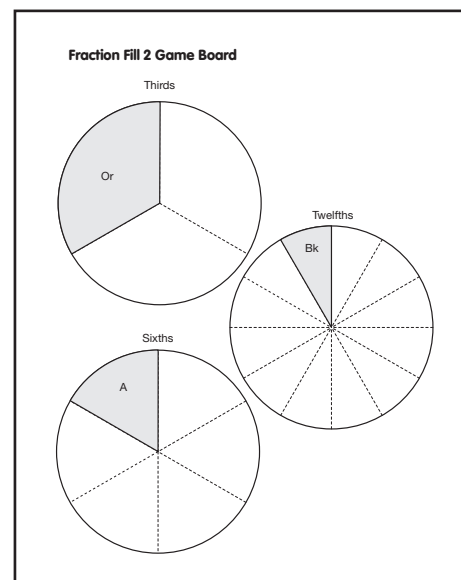
### Directions

Follow the Fraction Fill 1 directions, but use orange, aqua, and black pieces.

1. For this game, the unit whole is the full circle.
2. To begin, place one piece of each color (orange, aqua, and black) on the Fraction Fill 2 Game Board.
3. The first team spins one time. The team must place pieces on the game board that are equal to the fraction shown on the spinner. For example, if a team spins  $\frac{5}{6}$ , they can choose to place either 5 aqua pieces or 2 orange pieces and 1 aqua, or 10 blacks.

The outside edges of the pieces must line up with the lines on the circle. This means that:

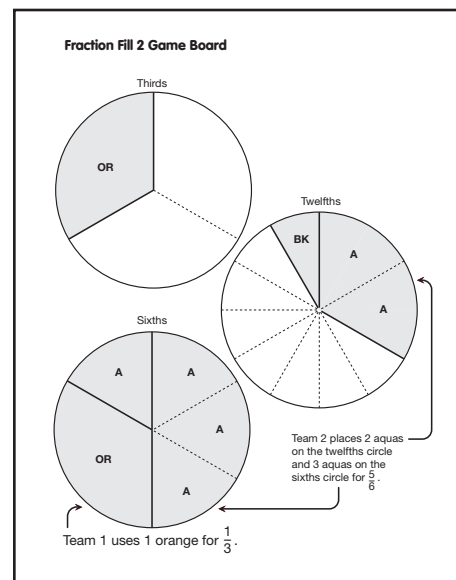
- Only orange pieces can go on the thirds circle.
- Only orange and aqua pieces can go on the sixths circle.
- Orange, aqua, and black pieces can go on the twelfths circle.



4. Teams earn one point each time they complete a circle. They record their points by writing a number sentence for the completed circle. For example,  $\frac{1}{3} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = 1$  represents a filled circle. The other team can ask players to explain why a move is correct before a point is recorded.
5. When a team fills a circle, they cannot use that circle again until their next turn. They remove the pieces to reset the circle with one piece, so the circle can be used by the other team.
6. Teams take turns spinning and adding pieces. The first team to earn 6 points wins the game.

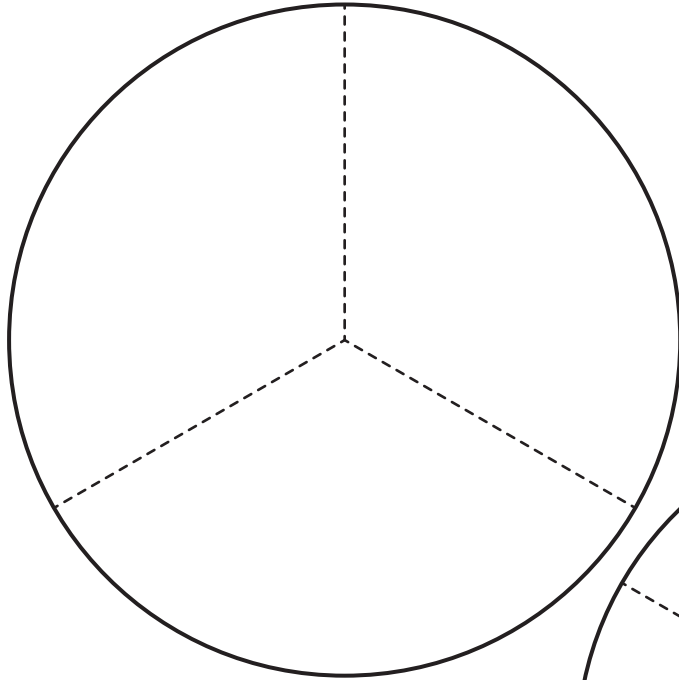
**Example:**

As shown on the sample game board, Team 1 spins  $\frac{1}{3}$  and places 1 orange on the sixths circle. Then Team 2 spins  $\frac{5}{6}$ . Since  $\frac{5}{6} = \frac{3}{6} + \frac{2}{6}$ , this team places 3 aquas on the sixths circle and 2 aquas on the twelfths circle. They complete a whole. They write  $\frac{4}{6} + \frac{1}{3} = 1$  to record one point.

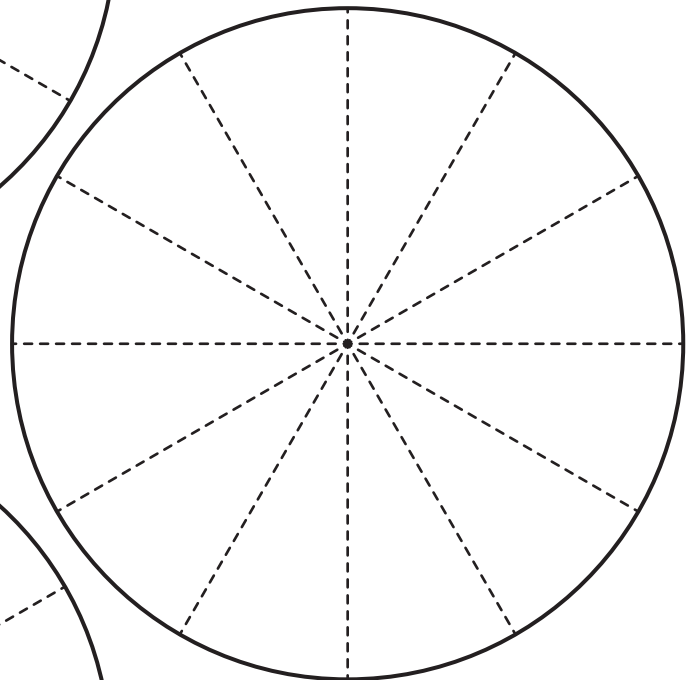


# Fraction Fill 2 Game Board

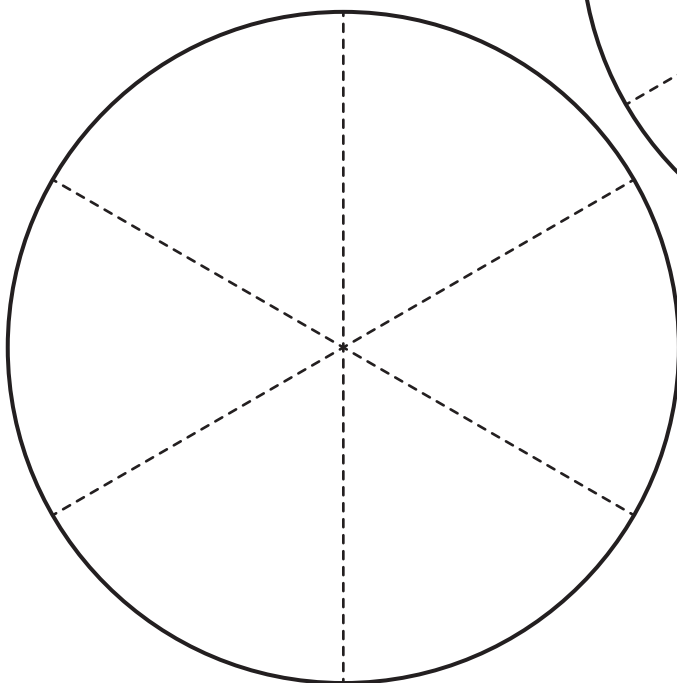
Thirds



Twelfths



Sixths



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## Fraction Fill 3

The object of this game is to be the first team to earn 6 points by filling 6 circles (unit wholes) with fraction pieces. Points are recorded using number sentences to represent each filled circle. This game is for two teams of two players each.

### Materials

- pink, orange, yellow, aqua, blue, and black circle pieces from two circle pieces sets
- one Fraction Fill 1 Game Board and one Fraction Fill 2 Game Board
- Spinner 3 on the *Fraction Games Spinners* pages
- clear plastic spinner or paper clip and pencil

### Directions

1. For this game, the unit whole is the full circle.
2. To begin, place one piece of each color (pink, yellow, and blue) on the Fraction Fill 1 Game Board. Place one piece of each color (orange, aqua, and black) on the Fraction Fill 2 Game Board.
3. The first team spins one time. The team must place a piece or pieces on the game boards equal to the fraction shown on the spinner. For example, if a team spins  $\frac{3}{8}$ , they can fill 1 yellow and 1 blue on Fraction Fill 1 Game Board or they can fill 1 blue on Fraction Fill 1 Game Board and 3 blacks on Fraction Fill 2 Game Board.

The outside edges of the pieces must line up with the lines on the circle. This means that:

- Only pink pieces can go the lines on the halves circle.
  - Only pink and yellow pieces can go in the fourths circle.
  - Pink, yellow, and blue pieces can go on the eighths circle.
  - Only orange pieces can go in the lines on the thirds circle.
  - Pink, orange, and aqua pieces can go in the sixths circle.
  - Pink, yellow, orange, blue, aqua, and black can go in the twelfths circle.
4. Teams earn one point each time they complete a circle. They record their points by writing a number sentence for the completed circle. For example,  $\frac{1}{4} + \frac{1}{4} + \frac{1}{8} + \frac{1}{8} + \frac{1}{12} + \frac{1}{12} + \frac{1}{12} + \frac{1}{12} = 1$  or  $\frac{1}{4} + \frac{1}{4} + \frac{2}{8} + \frac{4}{12} = 1$  represents a filled circle. The other team can ask players to explain why a move is correct before a point is recorded.

5. When a team fills a circle they cannot use that circle again until their next turn. They remove the pieces to reset the circle with one piece, so the circle may be used by the other team.
6. Teams take turns spinning and adding pieces. The first team to earn 6 points wins the game.

**Example:**

As shown on the sample game boards, Team 1 spins  $\frac{1}{3}$  and places an orange on the thirds circle on Fraction Fill 2 Game Board. Team 2 spins  $\frac{5}{6}$ . They break  $\frac{5}{6}$  into the sum of  $\frac{3}{6} + \frac{2}{6}$ . They know  $\frac{3}{6} = \frac{1}{2}$  and  $\frac{2}{6} = \frac{1}{3}$ , so they place 1 pink on the halves circle on Fraction Fill 1 Game Board and 1 orange on Fraction Fill 2 Game Board. That fills two circles. They write  $\frac{1}{2} + \frac{1}{2} = 1$  and  $\frac{3}{3} = 1$  to record 2 points.

