

# Circles and Squares

**Object:** to be the player whose shape is the remaining shape at the end of the game

**Materials needed:** *Circles and Squares* sequence, pencil for each student

**Number of players:** 2

## Teacher Preparation

Print out one of the seven sequences for each pair of students.

## Game Play

- **Playing the game**

To begin, each player chooses to be either a circle or a square.

During a turn, a player selects any two shapes from the sequence. If the two shapes are identical, the player rewrites the sequence and replaces the two shapes with a square. If the two shapes are different, the player rewrites the sequence and replaces the two shapes with a circle.

Players take turns selecting shapes and rewriting the sequence. The game is over when only one shape is left.

- **Winning the game**

The player whose shape is the remaining shape at the end of the game wins.

- **Variation**

Students write their own sequence using circles and squares or other shapes.

## Discussion

Encourage students to use the same sequence for several rounds. Then encourage them to use different sequences for several rounds. Have students analyze each sequence to determine a strategy for winning. Have them answer questions such as:

How many shapes are in the sequence?

How many circles are in the sequence?

How many squares are in the sequence?

Ask students to explain whether they can guess the outcome of the game by just looking at the sequence.













