## inside $+ x = \div$ mathematics

# **Inside Problem Solving**

## **Game Show**

### **PreK**

Materials: The nine chips or tokens for each group

#### Discussion on the rug:

Teacher starts a discussion about fair games. "What makes a game fair? Tell us about a game that is unfair." Teacher demonstrates how to play the game with two players. "Each player takes two coins on each turn. If you can't pick up two coins, then the game is over. The last player to pick up two coins is the winner."

**In small groups:** Each group plays the game several times. Have the pairs switch who starts first.

After the games, the teacher polls the class and records the outcomes for the entire class.

"Which player has the best chance of winning?"

"Does the same player always win?"

"Explain why you think it happens."

Teacher asks the following questions:

"Is this a fair game?"

"Why is this game fair or not fair?"

"How could you change this game to make it better?"

At the end of the investigation, have students either discuss or dictate a response to the summary questions above.

— Inside Problem Solving: Game Show —