

A Fair Game?



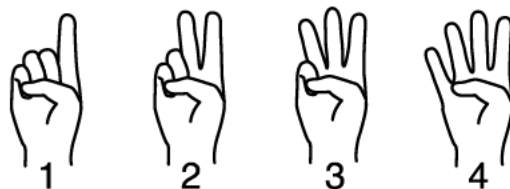
Family Note To explore probability, play the game *Fingers* with your child. After 20 games, have your child decide if the game is fair and explain why or why not. (A game is fair if all players have an equal chance of winning or losing.)

Please return this Home Link to school tomorrow.

Play *Fingers* at least 20 times. Keep a tally of wins and losses in the table below.

Rules for *Fingers*

This is a game for 2 players. One player tries to guess the number of fingers the other player will throw (display).



You, the *Everyday Mathematics* student, can throw 1, 2, 3, or 4 fingers. The other player can throw only 1 or 2 fingers.

Players face each other. Each one puts a closed fist on his or her chest.

One player counts, "One, two, three." On "three," each player throws some number of fingers.

At the same time, both players call out what they think will be the total number of fingers thrown by both players.

- ◆ The player who calls out the correct total wins.
- ◆ If *neither* player calls out the correct total, no one wins.
- ◆ If *both* players call out the correct total, no one wins.

Tallies for Wins	Tallies for Losses

1. Is this game fair? (Fair means each player has the same chance of winning.) _____
2. On the back of this page explain your answer.

Adaptation of rules for *Mora* in *Family Fun and Games*, The Diagram Group, Sterling Publishing, 1992, p. 365