

Math 312 – Applied Mathematics: Social Sciences Spring 2005

The Coin and Die Game

In this game there are two players, *Coin* and *Die*. *Coin* has a coin, and *Die* has a single six-sided die.

- When it is *Coin*'s turn, he or she flips the coin. If the coin turns up **heads**, *Coin* wins the game. If the coin turns up **tails**, it is *Die*'s turn.
- When it is *Die*'s turn, he or she rolls the die. If the die turns up **1**, *Die* wins. If the die turns up **6**, it is *Coin*'s turn. Otherwise, *Die* rolls again.

Class Exercise. With a partner, play the game 20 times, with *Coin* going first each time. Keep track of who wins each game, and the total number of coin flips and rolls of the die that takes place in each game.

Then play 20 more games, but with *Die* going first each time, and keep track of the same information.