

Lecture 15

i>clicker

Play#1: Decide x_1

We start Play#1 with 3 coins.

The goal is to get 5 coins at the end of Play#3.

How many coins should we bet now?

- A. 0 coins
- B. 1 coin
- C. 2 coins
- D. 3 coins
- E. 4 coins

Play#1: Observe outcome

We start Play#1 with 3 coins.

If Heads, then wins the play:

We'll start Play#2 with $s_2 = 3 + x_1$ coins

If Tails, then loses the play:

We'll start Play#2 with $s_2 = 3 - x_1$ coins

[Toss a coin...](#)

Play#2: Decide x_2

The goal is to get 5 coins at the end of Play#3.

How many coins should we bet now?

- A. 0 coins
- B. 1 coin
- C. 2 coins
- D. 3 coins
- E. 4 coins

Play#2: Observe outcome

We start Play#2 with s_2 coins.

If Heads, then wins the play:

We'll start Play#3 with $s_3 = s_2 + x_2$ coins

If Tails, then loses the play:

We'll start Play#3 with $s_3 = s_2 - x_2$ coins

[Toss a coin...](#)

Play#3: Decide x_3

The goal is to get 5 coins at the end of Play#3.

How many coins should we bet now?

- A. 0 coins
- B. 1 coin
- C. 2 coins
- D. 3 coins
- E. 4 coins

Play#3: Observe outcome

We start Play#3 with s_3 coins.

If Heads, then wins the play:

We'll end Play#3 with $s_{\text{final}} = s_3 + x_3$ coins

If Tails, then loses the play:

We'll start Play#3 with $s_{\text{final}} = s_3 - x_3$ coins

Toss a coin...

(If $s_{\text{final}} = 5$, then we win the game.)