Problem of the Week
Problem D
Just My Three Cents

In Canada, pennies are 1 cent coins that were used up until 2012. Adeline and Bai are playing a game using three pennies and a game board consisting of a row of 8 squares. To start the game, the pennies are placed in the three leftmost squares, as shown.

The rules of the game are as follows:

- On a player’s turn, the player must move one penny one or more squares to the right.

- The penny may not pass over any other penny or land on a square that is occupied by another penny.

- The game ends when the pennies are in the three rightmost squares. The last player to move a penny wins the game.

Adeline knows that if she goes first she can always win the game, regardless of where Bai moves the pennies on her turns. Describe Adeline’s first move and her winning strategy.