## UW Math Circle

Faron and Snoopy have found a bar of chocolate. Unfortunately, the top left square of chocolate is poisoned! Faron and Snoopy take turns choosing a square of chocolate and eating that square of chocolate along with all squares below and to the right of it. The player that is forced to eat the poisoned square of chocolate loses. Here is an example of a game where Faron plays first and Snoopy plays second:


Snoopy wins the game since Faron is forced to eat the poisoned square of chocolate. Find a friend and play a few games. Try to answer some the following questions:

1. Who wins on a $1 \times 3$ board?

2. Who wins on a $2 \times 3$ board?


3 . Who wins on a $3 \times 3$ board?


