

# Working Backwards



A friend proposes a game to decide who picks up the next tab. There are six marbles of three colors - one, two, and three of each color. You and your friend take turns removing any number of marbles of the same color (except zero; at least one marble must be removed per turn), and whoever removes the last marble wins. Your friend offers to let you go first.



**Problem.** Should you accept the offer? Explain.



Submit your solution online by scanning QR code and filling out the form, or submit at

[sites.google.com/unomaha.edu/unopow](https://sites.google.com/unomaha.edu/unopow)

A photo of handwritten work is fine. You can also turn in solutions physically at the UNO math department's mail room (located on the second floor of the Durham Science Center).