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Problem 4 (due Monday, October 26)
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a non-zero digit, the first digit of the number. Then Jack and Jill alternate picking the next
digits, each time they can choose any digit which has not been used before. Jack wins if
the 6 digit number is a prime, Jill wins otherwise. For example, suppose Jill picks 8, then
, Jack picks 0 , then Jill picks 9 , then Jack picks 4, then Jill picks 6, and finally Jack picks 1 . We
I get the number 809461, which is a prime number, so Jack wins. Which player has a
Istrategy to win regardless of how the other plays?
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Only one solution was received, form Yuqiao Huang. His solution analyses many cases, and some of them are left for the reader. A shorter solution is provided in the following link Solution

## From: <br> https://www2.math.binghamton.edu/ - Binghamton University Department of Mathematics and Statistics

Permanent link:
https://www2.math.binghamton.edu/p/pow/problem4f20
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