

# PUZZLES

The TWENTY-FIFTH  
Sean Kelly  
Brandon McPhail

## MATE IN 271 White

to play and mate in 271 moves. Now, before you stop reading(!), notice that white doesn't have very many legal moves, whereas black can really only move his pawns forward.

Also, you might notice that white has three bishops. This isn't a mistake, and it's a perfectly legal position. Just assume that white promoted a pawn to a bishop at some point.

This mate is generally considered the longest known forced mate. Surprisingly it wasn't found with the aid of computer. It was created in 1969 by Nenad Petrovic.

*Einstein said this couldn't be done by 98% of the population*



## WHAT A GAME

Part 1: There are three three-sided dice with blank faces, which are "fair" in the sense that when a die is tossed in the air, each side is equally likely to come up. We are going to play a game with the dice. The game involves two players, Player A and Player B. Player A will write the numerals 1-9 on the faces, using each numeral exactly once. Player B will choose a die, then Player A will choose one of the two remaining dice. Then 101 rounds take place. In each round, A and B will each roll their die, and the player whose die's face has the greater number wins that round. After 101 rounds, the player who has won the most rounds wins \$100. You may choose to be Player A or to be Player B; I'll be the other. What is your choice?

Part 2: Make a fair three-sided die.

*Puzzle submitted by Paul Hovda.*

*Einstein said this couldn't be done by 80% of the population*

Einstein said this couldn't be done by...

- 50% of the population. Easy
- 70% of the population. Not easy
- 80% of the population. More challenging
- 98% of the population. This is a hard problem.
- 100% of the population. (Go ask him for help.)

Think you know the answer?  
For more info on these puzzles, go to  
<http://www.reed.edu/~mcphailb/quest/>

Questions? Blitz: [puzzles@reed.edu](mailto:puzzles@reed.edu)

I don't know if you actually expect people to solve the puzzles you publish -  
Excerpt from our fan mail