

# Chess on Half the Board is a Win for White

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## Abstract

A centuries-old question in game theory is whether, in the game of chess, the first player can force a win. While the game tree is so large as to despair at ever finding an answer, we can hope to derive new insights from solving reduced versions of the game.

Chess on half the board is such a version, with conservative estimates putting the number of possible games at  $10^{50}$  or more. Nevertheless, via an explicit construction, we are able to prove conclusively that this game is a win for the white pieces.

## 1 Main Result

