1077-03-1980 **Allen L. Mann*** (allen.l.mann@gmail.com), Department of Mathematics, Colgate University, 13 Oak Drive, Hamilton, NY 13346. *A logical analysis of the Monty Hall problem.*

A game-show contestant is presented with three doors, one of which contains a prize. After the contestant makes her initial choice, the host opens one of the other doors, showing that it does not contain the prize. He then offers the contestant the opportunity to change her mind. Should the contestant stick with the door she originally choose, or should she switch?

We present a novel analysis of the Monty Hall problem using probabilistic logic with imperfect information. (Received September 21, 2011)