

Endow each of the 8 billion people on Earth with one dollar and let each of them guess the flips of a fair coin. The coin is publicly flipped for 200 consecutive days. The wealth of each person who correctly guessed the coin flip is multiplied by $e \approx 2.718$ and the wealth of those who guessed incorrectly is unaltered on any given day. Assume that all people privately uniformly randomize their guesses. Pick a dollar uniformly from the aggregate wealth at the end of the day 200. Argue that the owner of this dollar has guessed about 73 % of the coin flips.

Hint: Notice that a rationally inattentive decision maker who can learn about the outcome of a flip of a fair coin at entropy cost guesses correctly with a probability of about 73 %.