

Second Guess

May 19, 2025

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I have a shuffled deck of 52 cards. I flip over the top card and it's an ace.

Question: What is the probability that the next card in the deck is also an ace?



Probability: ____ / ____

Express your answer as a **Reduced Fraction**.

Solution:

The probability that the next card is also an ace is **$1 / 17$** ! If you guessed $3 / 51$ you didn't read the rule closely enough or you made a mistake in the algebra.

The deck starts with 52 cards, 4 of which are aces. When you remove the first card, revealing an ace, the deck is reduced to 51 cards and now contains 3 aces. The probability of choosing an ace from the deck is therefore $3 / 51$, which reduces to $1 / 17$. The rules require reducing the fraction.

This is the solution to the puzzle.