What is the probability of you answering this question correctly?

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1 Introduction: Unpacking the 'Question'

Within this paper, the primary question named in the title ("What is the probability of you answering this question correctly?") is referred to as Q_0. As we encounter other related questions, we will define them using similar notation. The primary goal of this paper is to develop a deeper understanding of Q_0.

Let us define $P : [0, 1] \to [0, 1]$ as follows:

Definition 1. $P(x)$ represents the probability that x is the correct answer to Q_0.

Using this definition, we can proceed to construct a definition of an answer to Q_0:

Definition 2. $\forall a \in [0, 1], [P(a) = a] \implies$ a is a correct answer.

2 Consistent Answers

A set of sentences is logically consistent if and only if it is possible for all the members of that set to be true. Since the only statement that an answer a needs to satisfy is $P(a) = a$, we can construct a definition for what it means for an answer to be *consistent*.

Definition 3. An answer a is consistent if it is **not impossible** for $P(a) = a$.