7.SP Stay or Switch?

Task

You are playing a video game. At the end of every level, there are three boxes. One contains 10,000 points, and the other two are empty. You are allowed to choose one of the boxes, but before the one you choose opens, one of the other boxes always opens to show that it is empty. The game allows you to either (1) stay with your first choice or (2) switch to the other unopened box.

For example, there are three boxes, A, B, and C.



Suppose you choose box B:



Before box B opens, one of the other boxes opens to show that it is empty. Imagine that in this case it is box C:





The game allows you to stay with your first choice or to switch to the other unopened box.

Should you stay or should you switch?





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