Express Riddler

4 October 2019

Riddle:

From Thomas Sneller comes a puzzle that brings us back to the game show to end all game shows, "Who Wants to Be a Riddler Millionaire?" As you'll remember, for each question you must pick the correct option from four choices.

You've made it to the \$1 million question, but it's a tough one. Out of the four choices, A, B, C and D, you're 70 percent sure the answer is B, and none of the remaining choices looks more plausible than another. You decide to use your final lifeline, the 50:50, which leaves you with two possible answers, one of them correct. Lo and behold, B remains an option! How confident are you now that B is the correct answer?

Solution:

Before the lifeline, the relative confidence in each of the answers was 1:7:1:1. After removing two answers, the relative confidence was 7:1. I don't see how the relative confidence could change, so now your confidence level is $\frac{7}{8}$, or $\frac{87.5\%}{8}$.