Transcript

Let's Make A Deal – Explanation #1

01. 00:01 / 00:05 - Initially when you're asked to choose a door, each one of the three doors is equally likely
02. 00:05 / 00:12 - to have the prize behind it with probability one-third. Let's say you choose door A. Now
03. 00:13 / 00:18 - let's divide the three doors into two groups. There is a probability of one-third that the
04. 00:18 / 00:24 - prize is behind the door that you chose, A, and a probability of two thirds that the prize
05. 00:24 / 00:31 - is behind one of the other un-chosen doors, B or C. Say that now the host is revealing
06. 00:31 / 00:37 - door C, which has no prize behind it. You now have the choice of staying with the door
07. 00:37 / 00:44 - A, which you initially chose, or switching to door B. Now that door C has been revealed
08. 00:44 / 00:50 - there is zero chance that it hides the prize and therefore the entire probability of two
09. 00:50 / 00:57 - thirds that was equally divided between doors B and C before is now all attached door B.
10. 00:57 / 01:03 - Note that there is still one third chance that the price is behind door A but there
11. 01:03 / 01:09 - is a 2/3 chance that the prize is behind door B and therefore it's better to switch.